THE STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION

U.S. CUSTOMARY UNITS

SEMI-FINAL PLANS

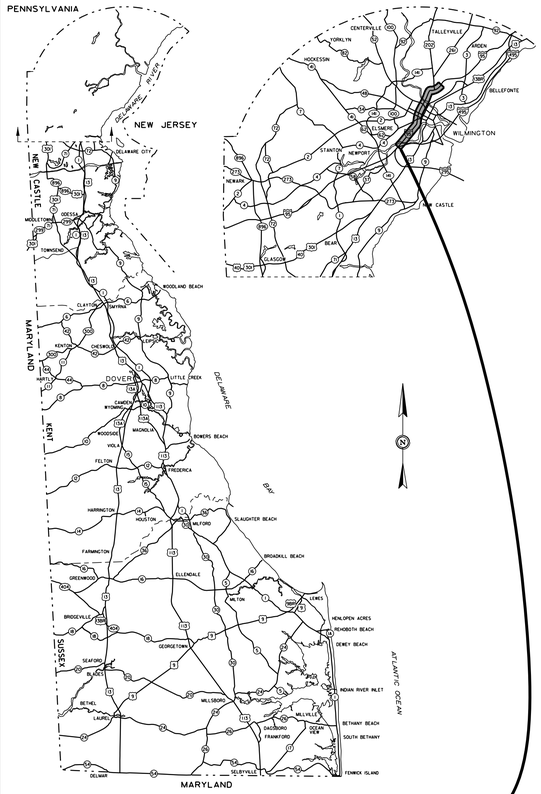
CONSTRUCTION PLANS FOR:

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT NUMBER: T201407404

FEDERAL AID PROJECT NUMBER: EBHN-N748(01)

COUNTY: NEW CASTLE **M.R. #:** N 59



GENERAL LOCATION OF CONTRACT

END CONTRACT STATION 1484+19

BEGIN CONTRACT STATION 3002+85

LOCATION MAP

NOT TO SCALE

DESIGN DESIGNATION

MRD #:	ROAD NAME:		
FUNCTIONAL CLASS: INTERSTATE		D.H.V. PROJECTED: 7,900	YEAR: 2040
TYPE OF CONSTRUCTION: BRIDGE REHABILITATION		DESIGN SPEED: 65 M.P.H.	
A.A.D.T. CURRENT: 111,000	YEAR: 2015	TRUCKS: 4.6 %	
A.A.D.T. PROJECTED: 142,000	YEAR: 2040	DIRECTION OF DISTRIBUTION: 54 %	

APPROVED DESIGN EXCEPTIONS

DESIGN PARAMETER	REQUIRED	PROVIDED	DATE

ADDENDA / REVISIONS

DESCRIPTION	NAME & DATE

ASSOCIATED CONTRACTS

CONTRACT NO.	CONTRACT NAME
1-2(2)	INTERSTATE HIGHWAY ROUTE I-95 GRADING, DRAINAGE, PAVING & APPURTENANCES
64-03-004	INTERSTATE HIGHWAY ROUTE I-95 SOUTH WILMINGTON VIADUCT
64-03-005	I-95 (PART 'C') FOURTH STREET TO BRANDYWINE
64-04-020	I-95 (PART A) FOURTH STREET TO NINTH STREET
64-04-021	I-95 BRANDYWINE RIVER BRIDGE TO MARSH ROAD GRADING AND PARTIAL PAVING
76-03-020	WILMINGTON BOULEVARD RAMPS E AND F VIADUCTS
76-01-015	WILMINGTON BOULEVARD I-95 MODIFICATIONS
75-06-001	I-95 WIDENING AND CHRISTINA INTERCHANGE TO SOUTH WILMINGTON VIADUCT
XX-XX-XXX	XXXX

APPROVED FOR ADVERTISEMENT

DIRECTOR OF TRANSPORTATION SOLUTIONS DATE

PREPARED BY

Whitman, Requardt and Associates, LLP
Engineers • Architects • Environmental Planners Est. 1915

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "WRA" SECTION DESIGNATION. DATE SEAL

PREPARED BY

TYLIN INTERNATIONAL
DOVER, DELAWARE

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "TYL" SECTION DESIGNATION. DATE SEAL

PREPARED BY

Pennoni
PENNONI ASSOCIATES INC.
121 CONTINENTAL DRIVE
SUITE 207
NEWARK, DE 19713

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "PAI" SECTION DESIGNATION. DATE SEAL

PREPARED BY

RJM ENGINEERING
6031 University Blvd, Ellicott City, Maryland 21042

THIS SEAL APPLIES TO ALL SHEETS BEARING THE "RJM" SECTION DESIGNATION. DATE SEAL

NOT FOR CONSTRUCTION

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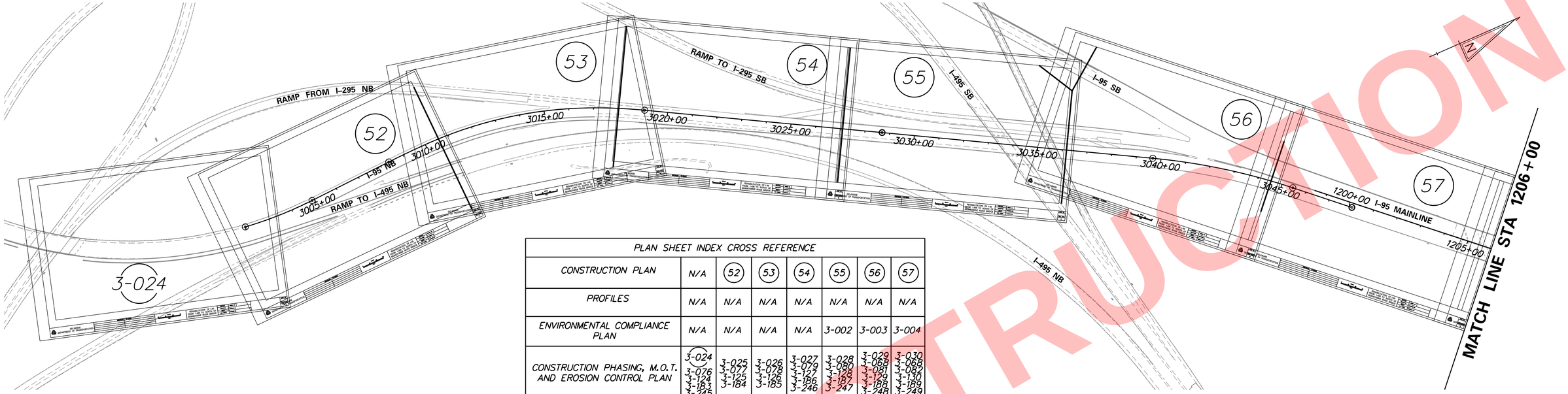
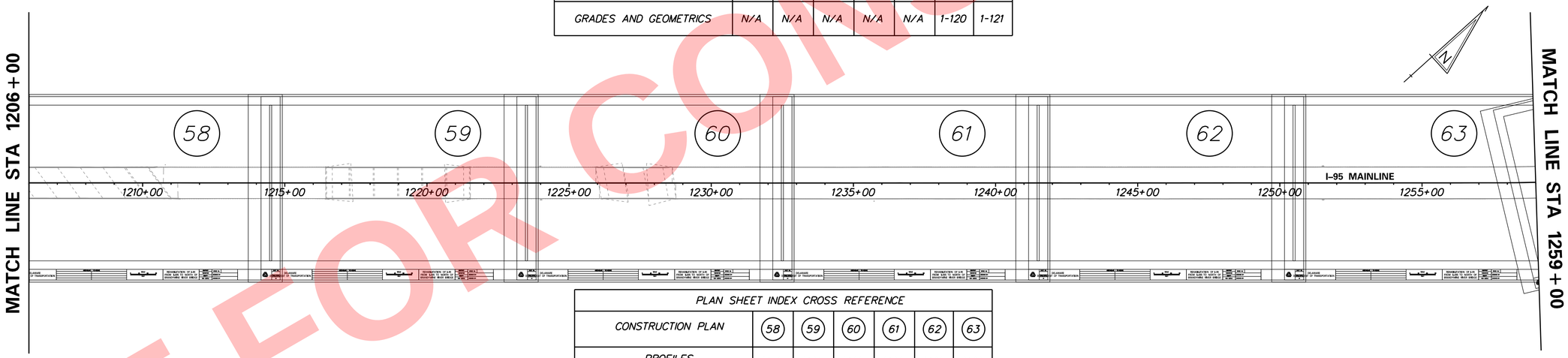


PLAN SHEET INDEX CROSS REFERENCE							
CONSTRUCTION PLAN	N/A	52	53	54	55	56	57
PROFILES	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ENVIRONMENTAL COMPLIANCE PLAN	N/A	N/A	N/A	N/A	3-002	3-003	3-004
CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN	3-024 3-076 3-124 3-183 3-245	3-025 3-077 3-125 3-184	3-026 3-078 3-126 3-185	3-027 3-079 3-127 3-186 3-246	3-028 3-080 3-128 3-187 3-247	3-029 3-068 3-081 3-129 3-188 3-248	3-030 3-068 3-082 3-130 3-189 3-249
LIGHTING PLAN	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SIGNING, STRIPING AND CONDUIT PLAN	3-329	3-329	3-330	3-331	3-332	3-333	3-334
GRADES AND GEOMETRICS	N/A	N/A	N/A	N/A	N/A	1-120	1-121



PLAN SHEET INDEX CROSS REFERENCE						
CONSTRUCTION PLAN	58	59	60	61	62	63
PROFILES	N/A	N/A	N/A	N/A	N/A	N/A
ENVIRONMENTAL COMPLIANCE PLAN	3-005	3-006	3-007	3-008	3-009	3-010
CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN	3-031 3-083 3-131 3-190 3-250	3-032 3-084 3-132 3-191 3-251	3-033 3-085 3-133 3-192 3-252	3-034 3-086 3-134 3-193 3-253	3-035 3-087 3-135 3-194 3-254	3-036 3-069 3-088 3-136 3-195 3-255
LIGHTING PLAN	N/A	N/A	N/A	N/A	N/A	N/A
SIGNING, STRIPING AND CONDUIT PLAN	3-335	3-336	3-337	3-338	3-339	3-340
GRADES AND GEOMETRICS	1-122	1-123	1-124	1-125	1-126	1-127

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 200 400 600 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PLAN SHEET INDEX

IS-01

SECTION WRA

SHEET NO. 2

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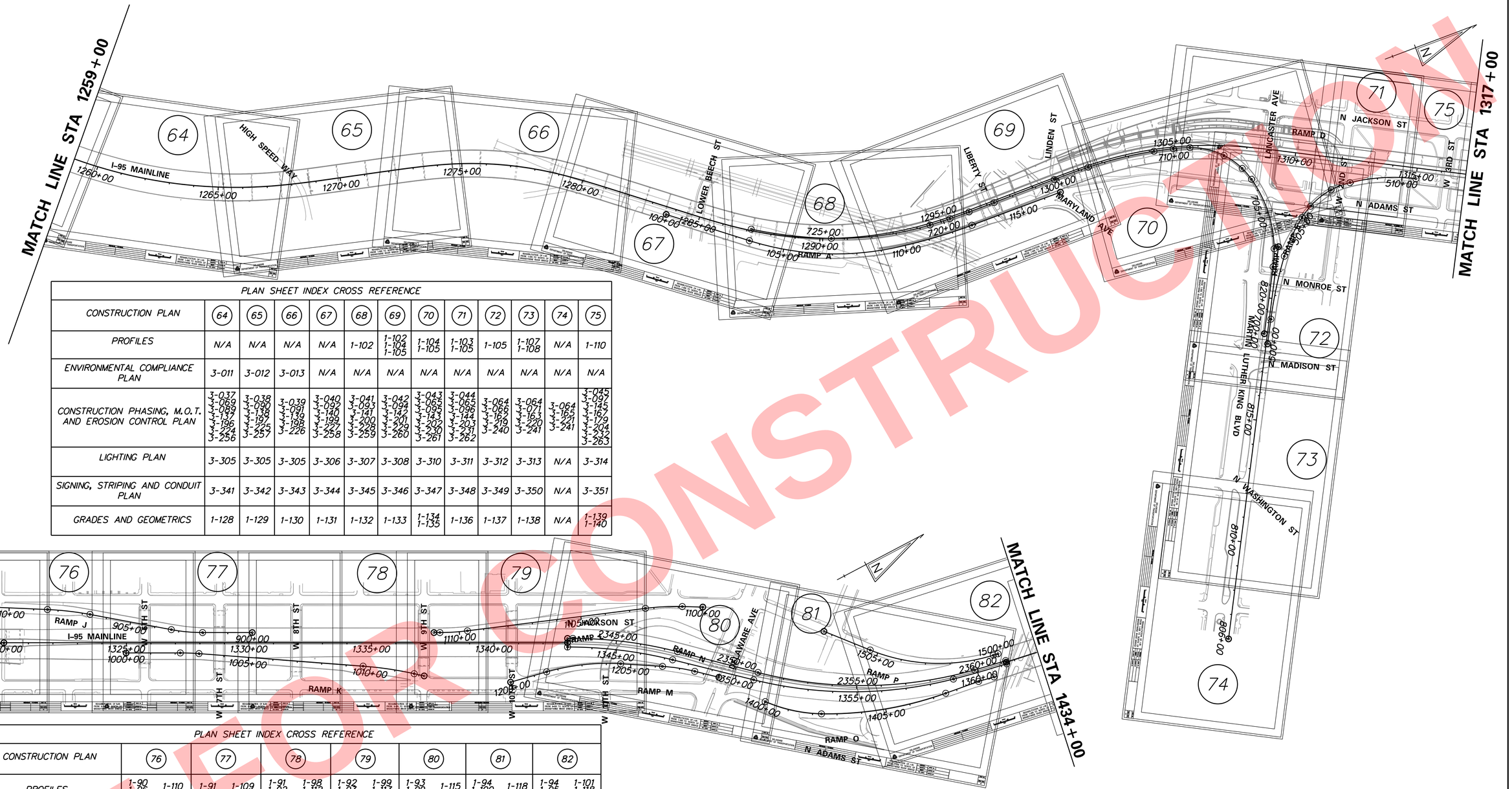

PLAN SHEET INDEX CROSS REFERENCE												
CONSTRUCTION PLAN	64	65	66	67	68	69	70	71	72	73	74	75
PROFILES	N/A	N/A	N/A	N/A	1-102	1-102 1-104 1-105	1-104 1-105	1-103 1-105	1-105	1-107 1-108	N/A	1-110
ENVIRONMENTAL COMPLIANCE PLAN	3-011	3-012	3-013	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN	3-037 3-069 3-089 3-137 3-196 3-224 3-256	3-038 3-090 3-138 3-197 3-225 3-257	3-039 3-091 3-139 3-198 3-226	3-040 3-092 3-140 3-199 3-227 3-258	3-041 3-093 3-141 3-200 3-228 3-259	3-042 3-094 3-142 3-201 3-229 3-260	3-043 3-065 3-095 3-143 3-202 3-230 3-261	3-044 3-065 3-096 3-144 3-203 3-231 3-262	3-064 3-066 3-166 3-219 3-240	3-064 3-071 3-163 3-220 3-241	3-064 3-165 3-221 3-241	3-045 3-097 3-145 3-167 3-179 3-204 3-222 3-263
LIGHTING PLAN	3-305	3-305	3-305	3-306	3-307	3-308	3-310	3-311	3-312	3-313	N/A	3-314
SIGNING, STRIPING AND CONDUIT PLAN	3-341	3-342	3-343	3-344	3-345	3-346	3-347	3-348	3-349	3-350	N/A	3-351
GRADES AND GEOMETRICS	1-128	1-129	1-130	1-131	1-132	1-133	1-134 1-135	1-136	1-137	1-138	N/A	1-139 1-140

PLAN SHEET INDEX CROSS REFERENCE							
CONSTRUCTION PLAN	76	77	78	79	80	81	82
PROFILES	1-90 1-96 1-109 1-110 1-111	1-91 1-97 1-109 1-111	1-91 1-92 1-97 1-98 1-112 1-114	1-92 1-93 1-98 1-99 1-113 1-115	1-93 1-99 1-113 1-115 1-116	1-94 1-100 1-116 1-118 1-119	1-94 1-95 1-100 1-101 1-118 1-119
ENVIRONMENTAL COMPLIANCE PLAN	N/A	N/A	N/A	N/A	N/A	N/A	3-014
CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN	3-046 3-070 3-098 3-117 3-121 3-146 3-168 3-179 3-205 3-233 3-264	3-047 3-067 3-099 3-118 3-121 3-147 3-169 3-206 3-234 3-265	3-048 3-067 3-100 3-119 3-148 3-170 3-207 2-235 3-266	3-049 3-101 3-120 3-149 3-171 3-208 3-236 3-267	3-050 3-102 3-150 3-172 3-209 3-222 3-237 3-268	3-051 3-103 3-151 3-173 3-210 3-222 3-238 3-269	3-052 3-104 3-152 3-174 3-211 3-239 3-270
LIGHTING PLAN	3-315	3-316	3-317	3-318	3-319	3-320	3-321
SIGNING, STRIPING AND CONDUIT PLAN	3-352	3-353	3-354	3-355	3-356 3-357	3-358 3-359	3-360
GRADES AND GEOMETRICS	1-141 1-142	1-143 1-144	1-145 1-146	1-147 1-148	1-149 1-150	1-151 1-152	1-153 1-154

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE
0 200 400 600
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PLAN SHEET INDEX

IS-02
SECTION
WRA
SHEET NO.
3

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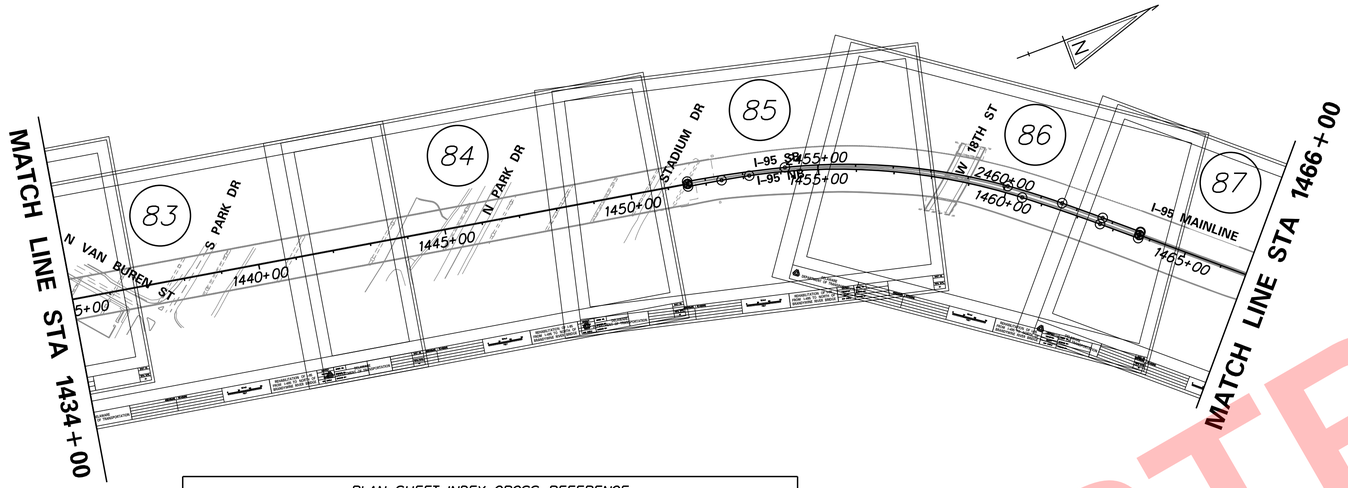
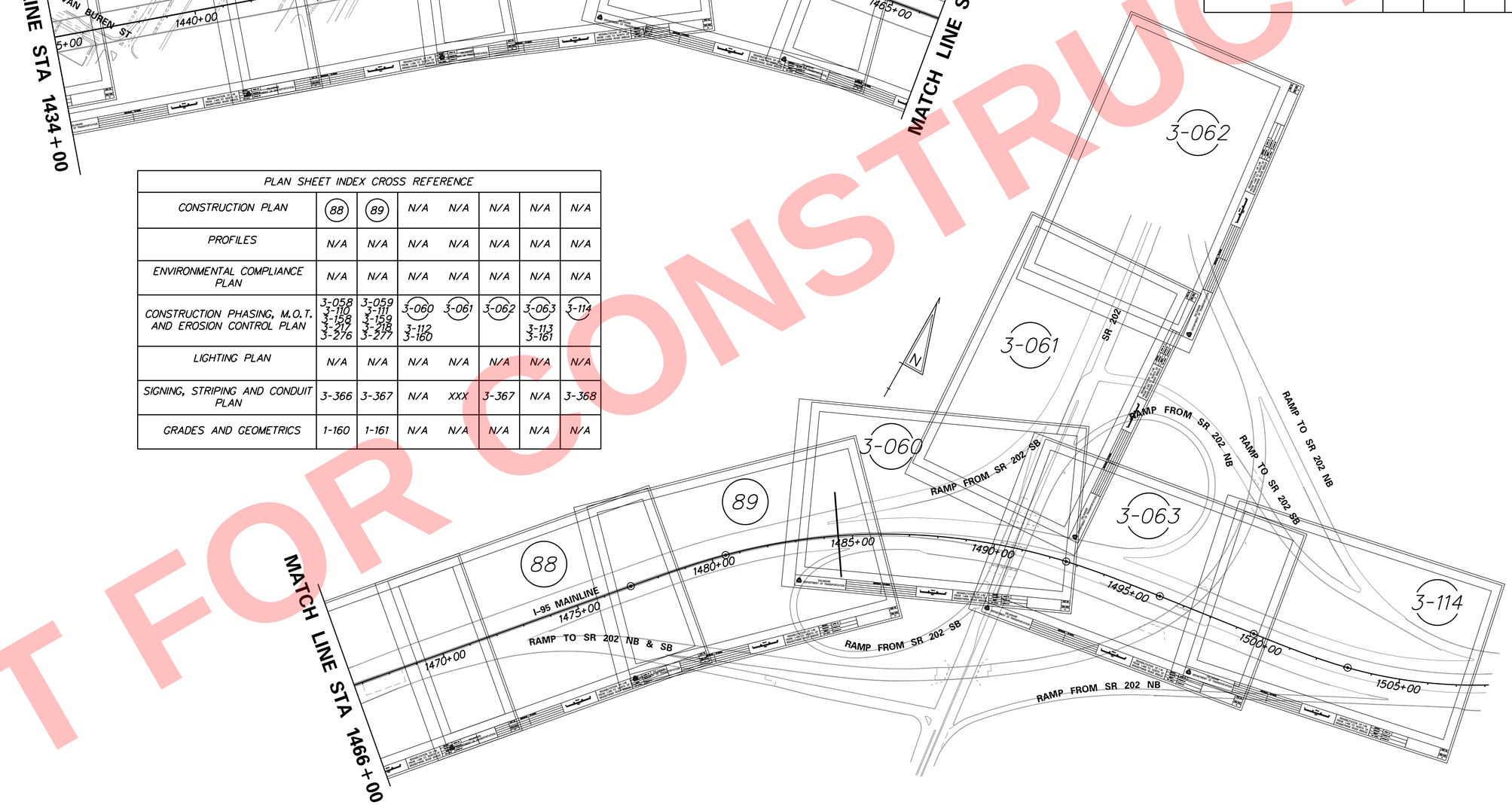
PLAN SHEET INDEX CROSS REFERENCE					
CONSTRUCTION PLAN	83	84	85	86	87
PROFILES	N/A	N/A	N/A	N/A	N/A
ENVIRONMENTAL COMPLIANCE PLAN	3-015	3-016	3-017	N/A	N/A
CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN	3-053 3-105 3-153 3-175 3-212 3-271	3-054 3-106 3-154 3-176 3-213 3-272	3-055 3-074 3-107 3-155 3-177 3-214 3-273	3-056 3-074 3-108 3-156 3-215 3-274	3-057 3-109 3-157 3-178 3-216 3-275
LIGHTING PLAN	3-322	3-323	3-324	N/A	N/A
SIGNING, STRIPING AND CONDUIT PLAN	3-361	3-362	3-363	3-364	3-365
GRADES AND GEOMETRICS	1-155	1-156	1-157	1-158	1-159



PLAN SHEET INDEX CROSS REFERENCE							
CONSTRUCTION PLAN	88	89	N/A	N/A	N/A	N/A	N/A
PROFILES	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ENVIRONMENTAL COMPLIANCE PLAN	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONSTRUCTION PHASING, M.O.T. AND EROSION CONTROL PLAN	3-058 3-110 3-158 3-217 3-276	3-059 3-111 3-159 3-218 3-277	3-060 3-112 3-160	3-061	3-062	3-063 3-113 3-161	3-114
LIGHTING PLAN	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SIGNING, STRIPING AND CONDUIT PLAN	3-366	3-367	N/A	XXX	3-367	N/A	3-368
GRADES AND GEOMETRICS	1-160	1-161	N/A	N/A	N/A	N/A	N/A



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE
0 200 400 600
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PLAN SHEET INDEX

IS-03

SECTION
WRA
SHEET NO.
4

EXISTING SYMBOLS

DRAINAGE

—∞—	DITCH OR STREAM CENTERLINE
—→	DIRECTIONAL STREAM FLOW ARROW
C.B. / D.I.	DRAINAGE INLET
J.B.	DRAINAGE JUNCTION BOX
D	DRAINAGE MANHOLE
SIZE/TYPE LABEL	DRAINAGE PIPE AND FLOW ARROW
	DRAINAGE PIPE HEADWALL
	RIPRAP - AREA FEATURE
	RIPRAP - LINEAR FEATURE

MANMADE ROADSIDE FEATURES

	BOLLARD - STEEL POLE
	BOLLARD - WOOD POST
(TYPE LABEL)	CURB
(TYPE LABEL)	CURB AND GUTTER
—x—	FENCE - CHAINLINK OR STRANDED
—o—	FENCE - STOCKADE OR SPLIT RAIL
FP	FLAG POLE
	GUARDRAIL - STEEL BEAM
	GUARDRAIL - WIRE ROPE
LAMP	LAMP AND POST - RESIDENTIAL
MB	MAILBOX
PM	PARKING METER AND POST
	PAVEMENT - FLEXIBLE
	PAVEMENT - RIGID
	PILE - BRIDGE
	PILLAR OR MISCELLANEOUS POST
	TRAFFIC SIGN AND POST
	WALL - BRICK OR BLOCK
	WALL - STONE

NATURAL ROADSIDE FEATURES

	GRASS LAWN
	HEDGEROW OR THICKET
	MARSH BOUNDARY LINE
	TREE - CONIFEROUS
	TREE - DECIDUOUS
	TREE STUMP
	SHRUBBERY
—WL—	USACE WETLAND BOUNDARY
	WOODS LINE BOUNDARY
—SWM—	STATE MAPPED WETLAND

RIGHT-OF-WAY SYMBOLS

C.M.	PROPERTY MARKER - CONCRETE MON.
I.P.	PROPERTY MARKER - IRON PIPE
100+00	HISTORIC RIGHT-OF-WAY BASELINE
	EXISTING / RAILROAD RIGHT-OF-WAY
	EXISTING PROPERTY LINE
EASEMENT TYPE	EXISTING EASEMENT
DA	EXISTING DENIAL OF ACCESS
R/W-DA	EXISTING R/W & DENIAL OF ACCESS

SURVEY CONTROL & MONUMENTATION

B.M.	SURVEY BENCHMARK LOCATION
T.P.	SURVEY TIE POINT LOCATION
△	SURVEY TRAVERSE POINT
	POINT OF CURVATURE OR TANGENCY
	POINT OF INTERSECTING TANGENTS

UTILITY

	SOIL BORING LOCATION
	UTILITY TEST HOLE LOCATION
TV	CABLE TV DISTRIBUTION BOX
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
E	ELECTRIC TRANSFORMER
	POLE MOUNTED LUMINAIRE
G	GAS MANHOLE
G.M.	GAS METER
G.V.	GAS VALVE
G.P.	GAS PUMP - SERVICE STATION
	RAILROAD TRACKS
S	SANITARY SEWER MANHOLE
S.V.	SANITARY SEWER VALVE
VENT	SANITARY SEWER VENT OR CLEANOUT
S.D.F.	SEPTIC DRAIN FIELD
B	TELEPHONE BOOTH
T	TELEPHONE MANHOLE
T	TELEPHONE TEST POINT
J.W.	TRAFFIC - CONDUIT JUNCTION WELL
	TRAFFIC - LIGHT POLE AND BASE
	TRAFFIC - PEDESTRIAN POLE & BASE
	TRAFFIC - SIGNAL CABINET & BASE
	TRAFFIC - SIGNAL POLE AND BASE
U	UTILITY BOX
	UTILITY POLE GUY WIRE ANCHOR
	UTILITY POLE
F.H.	WATER - FIRE HYDRANT
W.M.	WATER METER
W.V.	WATER VALVE
WELL	WELL HEAD
?	MANHOLE - UNDETERMINED OWNER

UTILITY COMPANY FACILITIES

—VER-C—	VERIZON
—AW-W—	ARTESIAN WATER COMPANY
—DP-G—	DELMARVA POWER - GAS
—CW-S—	CITY OF WILMINGTON - SEWER
—CW-W—	CITY OF WILMINGTON - WATER
—NCC-S—	NEW CASTLE COUNTY - SEWER
—UNK-W—	UNKNOWN WATER

MISCELLANEOUS SYMBOLS

©	MANHOLE - COMBINATION SEWER/SD
⊗R.T.M.S.	RADAR TRAFFIC MANAGMENT SENSOR

PROPOSED SYMBOLS

CONSTRUCTION

	CONCRETE SAFETY BARRIER - PERMANENT
—BFS—	BIOFILTRATION SWALE
	BRICK PATTERNED SURFACE
	BUTT JOINT
100+00	CONSTRUCTION BASELINE
—CSF—	CONSTRUCTION SAFETY FENCE
	CURB, TYPE 1 & TYPE 3
	CURB, TYPE 2
	CURB & GUTTER, TYPE 1
	CURB & GUTTER, TYPE 2
	CURB & GUTTER, TYPE 3
	CURB & GUTTER, TYPE 4
—CZ—	CLEAR ZONE
	DRAINAGE INLET
	DITCH
	FENCE - METAL
	FENCE - WOOD
	FLARED END SECTION
	GUARDRAIL, TYPE 1
	GUARDRAIL, TYPE 2
	GUARDRAIL, TYPE 3
	GUARDRAIL END ANCHORAGE
	GUARDRAIL END TREATMENT, TYPE 1
	GUARDRAIL END TREATMENT, TYPE 2
	GUARDRAIL END TREATMENT, TYPE 3
	IMPACT ATTENUATOR
	JUNCTION BOX - DRAINAGE
—LO—	LATERAL OFFSET
LOC	LIMIT OF CONSTRUCTION
MB	MAILBOX
	MANHOLE
	PAVEMENT PATCH
	PAVEMENT REMOVAL - TOPSOIL, SEED AND MULCH
	PIPE & DIRECTIONAL FLOW ARROW
	RIPRAP
	P.C.C. SIDEWALK - 4"
	P.C.C. SIDEWALK - 6" (USE 8" DEPTH FOR CHANNELIZATION ISLANDS.)
	UNDERDRAIN
	UNDERDRAIN OUTLET

RIGHT-OF-WAY SYMBOLS

	PROPOSED RIGHT-OF-WAY MONUMENT
—DA—	PROPOSED DENIAL OF ACCESS
—PE—	PROPOSED PERMANENT EASEMENT
—R/W—	PROPOSED RIGHT-OF-WAY
—R/W-DA—	PROPOSED R/W & DENIAL OF ACCESS
—TCE—	TEMPORARY CONSTRUCTION EASEMENT
100+00	PROPOSED RIGHT-OF-WAY BASELINE

IDENTIFIERS

A/C	ADJUST BY CONTRACTOR
A/O	ADJUST BY OTHERS
B	CONCRETE SAFETY BARRIER
C	CURB OR CURB & GUTTER
CJB	CONVERT TO JUNCTION BOX
CMH	CONVERT TO DRAINAGE MANHOLE
C/O	CURB OPENING
CR	CURB RAMP / TYPE
CR-N	CURB RAMP / TYPE - WITHOUT SIDEWALK SURFACE DETECTABLE WARNING SYSTEM
CSF	CONSTRUCTION SAFETY FENCE
DI	DRAINAGE INLET
DND	DO NOT DISTURB
ED	ENERGY DISSIPATOR
F	FENCE
FES	FLARED END SECTION
FF/C	FILL WITH FLOWABLE FILL
FS	FILTRATION STRUCTURE
GR	GUARDRAIL
JB	JUNCTION BOX
MH	MANHOLE
M	MONUMENT - RIGHT-OF-WAY
P	PIPE
RL/C	RELOCATE BY CONTRACTOR
RL/O	RELOCATE BY OTHERS
RM/C	REMOVE BY CONTRACTOR
RM/O	REMOVE BY OTHERS
UD	UNDERDRAIN / LENGTH
UD/C	UNDERDRAIN CONNECTION TO EXISTING PIPE
UDO	UNDERDRAIN OUTLET PIPE

LANDSCAPING

LS	LANDSCAPE PLANTINGS
	SHRUBBERY
	CONIFEROUS TREE
	DECIDUOUS TREE

TRAFFIC

—ITMS-CON—	ITMS CONDUIT
—SIG-CON—	SIGNAL CONDUIT
	CONDUIT JUNCTION WELL
	LUMINAIRE
	PAVEMENT MARKINGS
	PAVEMENT STRIPING
	TRAFFIC SIGN
—EX-CON—	EXISTING CONDUIT

PAVEMENT SECTION(S)

	OVERLAY PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS
	12" PORTLAND CEMENT CONCRETE PAVEMENT 12" GRADED AGGREGATE BASE COURSE, TYPE B
	FULL DEPTH ASPHALT PAVEMENT - SEE TYPICAL SECTIONS FOR MATERIALS AND DEPTHS
	PAVEMENT REMOVAL OUTSIDE OF ROADWAY TEMPLATE

UTILITY COMPANY FACILITIES

—XXX—	PROPOSED UTILITY NAME
—XXX—	PROPOSED UTILITY NAME
—XXX—	PROPOSED UTILITY NAME
—XXX—	PROPOSED UTILITY NAME

MISCELLANEOUS SYMBOLS

SDP	SLOTTED DRAIN PIPE
PL	PIPE LINING

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

NOT TO SCALE

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	T201407404
COUNTY	NEW CASTLE
BRIDGE NO.	
DESIGNED BY: JAD	
CHECKED BY: BRT	

LEGEND

LG-01

SECTION	WRA
SHEET NO.	5

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GENERAL NOTES

1. THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", DATED AUGUST 2016 AND THE DELAWARE DEPARTMENT OF TRANSPORTATION "STANDARD CONSTRUCTION DETAILS", DATED 2016, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT.

2.

EROSION POTENTIAL FOR THIS PROJECT	CONTRACTOR ESC SUPERVISOR REQUIREMENT
( ) INSIGNIFICANT	NONE
( ) MINOR	CONTRACTOR TRAINING PROGRAM, AS DEFINED IN SECTION 6.2 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.
X MAJOR	CERTIFIED CONSTRUCTION REVIEWER (CCR), AS DEFINED IN SECTION 6.3 OF THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS.

3. ELECTRONIC PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR, INCLUDE:

( )	NONE
( )	ASCII DATA FILES WITH COORDINATES AND ELEVATIONS FOR PROPOSED POINTS AS SELECTED BY THE ENGINEER.
X	ALL PLAN SHEETS, IN PDF FORMAT.
( )	EXISTING DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
( )	PROPOSED DIGITAL TERRAIN MODEL, IN .DTM FILE FORMAT, COMPATIBLE WITH SOFTWARE CURRENTLY USED BY DELDOT.
( )	DESIGN FILE, IN .DGN FILE FORMAT, CONTAINING ONLY THE PROPOSED 3D TRIANGLES OF THE PROPOSED DIGITAL TERRAIN MODEL (DTM).

NOTE: THE DOCUMENT ENTITLED "RELEASE FOR DELIVERY OF DOCUMENTS IN ELECTRONIC FORM TO A CONTRACTOR" MUST BE SIGNED BY ALL PARTIES PRIOR TO THE DELIVERY OF ANY ELECTRONIC PROJECT FILES.

4. PROJECT FILES THAT WILL BE MADE AVAILABLE TO THE CONTRACTOR, INCLUDE:

X	CROSS SECTIONS (WILL BE MADE AVAILABLE TO THE AWARDED CONTRACTOR)
X	RIGHT-OF-WAY PLANS

5. AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR REQUIREMENT FOR THIS PROJECT.

( )	THE CONTRACTOR SHALL NOT BE REQUIRED TO HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT.
X	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT OR ANOTHER ATSSA CERTIFIED MEMBER OF THE CONTRACTOR'S PROJECT STAFF MAY BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR IS INCIDENTAL TO ITEM 801000.
( )	THE CONTRACTOR SHALL HAVE AN ATSSA SUPERVISOR ASSIGNED TO THIS PROJECT. THE ATSSA SUPERVISOR'S SOLE JOB SHALL BE SUPERVISION OF THE INSTALLATION, OPERATION AND MAINTENANCE OF TRAFFIC CONTROL DEVICES FOR THIS PROJECT. THE CONTRACTOR'S GENERAL SUPERINTENDENT FOR THIS PROJECT SHALL NOT BE THE ATSSA SUPERVISOR. PAYMENT FOR ATSSA SUPERVISOR SHALL BE PAID FOR UNDER ITEM 801000.

6. THE DISTURBED AREA FOR THIS PROJECT IS 31 ACRES.
7. THE SEDIMENT AND STORMWATER MANAGEMENT PLANS HAVE BEEN APPROVED BY DELDOT'S STORMWATER ENGINEER UNDER DELDOT'S DELEGATED AUTHORITY. THE SEDIMENT AND STORMWATER MANAGEMENT PLANS ARE VALID FOR A FIVE YEAR PERIOD, BEGINNING ON THE DATE THE STORMWATER ENGINEER SIGNED THE CONSTRUCTION TITLE SHEET. IF THE FINAL ACCEPTANCE OF THE PROJECT IS ANTICIPATED TO EXTEND BEYOND THE FIVE YEARS, THE CONTRACTOR WILL INFORM THE ENGINEER THREE MONTHS PRIOR TO THE EXPIRATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS. THE STORMWATER ENGINEER WILL REVIEW THE CURRENT SEDIMENT AND STORMWATER MANAGEMENT PLAN AND ISSUE AN EXTENSION WITH ANY APPROPRIATE MODIFICATIONS.

PROJECT NOTES

SECTION 100

1. ANY DAMAGE TO ITEMS NOTED TO BE RELOCATED OR RESET BY THE CONTRACTOR, AT THE DISCRETION OF THE ENGINEER, SHALL BE REPAIRED AND/OR REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.

2. THE CONTRACTOR WILL CONTACT THE DELAWARE TMC AT 302-659-4600 PRIOR TO ANY UNMANNED AIRCRAFT VEHICLE (UAV) FLIGHTS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE THE FOLLOWING INFORMATION: THE REGISTRATION NUMBER OF THE UAV, THE FLIGHT TIME, LOCATION OF THE FLIGHT, THE PILOT'S NAME AND THE PILOT'S CONTACT NUMBER DURING THE FLIGHT.

SECTION 200

3. ALL OBJECTS WITHIN THE LOC NOT DESIGNATED AS "DND" (DO NOT DISTURB) OR DESIGNATED TO BE ADJUSTED, ABANDONED, CONVERTED (TO JUNCTION BOX/MANHOLE), OR RELOCATED, SHALL BE REMOVED BY THE CONTRACTOR. ITEMS TO BE REMOVED UNDER ITEM 211000 - REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
   A. FENCES AND GATES
   B. GUARDRAIL, INCLUDING END TREATMENT ATTENUATORS, AND ATTACHMENTS TO STRUCTURES
   C. ABANDONED UTILITIES
   D. DRAINAGE STRUCTURES
   E. PREVIOUSLY ABANDONED BRIDGE AND SIGN STRUCTURE FOUNDATIONS

4. THE CONTRACTOR IS ADVISED THAT NOT ALL ITEMS TO BE REMOVED BY THE CONTRACTOR ARE IDENTIFIED ON THE PLANS. BARRIER TO BE REPLACED BY ANOTHER BARRIER OF THE SAME OR OF A DIFFERENT TYPE IN APPROXIMATELY THE SAME LOCATION, AND DRAINAGE STRUCTURES TO BE REPLACED BY DRAINAGE STRUCTURES OF THE SAME OR OF A DIFFERENT TYPE IN APPROXIMATELY THE SAME LOCATION, MAY NOT BE IDENTIFIED ON THE PLANS. THE CONTRACTOR SHALL REMOVE SUCH ITEMS WHEN IN CONFLICT WITH THE PROPOSED WORK. MEASUREMENT AND PAYMENT SHALL BE HANDLED AS SPECIFIED IN THE CONTRACT DOCUMENTS.

5. WHEN IN CONFLICT WITH ELEMENTS OF NEW CONSTRUCTION OR OTHERWISE DESIGNATED FOR REMOVAL ON THE PLANS, THE EXISTING PORTLAND CEMENT CONCRETE BARRIER AND ITS FOOTER SHALL BE REMOVED, WITH PAYMENT TO BE MADE UNDER ITEM 211XXX - REMOVAL OF PCC BARRIER AND FOOTER.

6. PAVEMENT CORE DATA WAS OBTAINED AT LIMITED LOCATIONS THROUGHOUT THE PROJECT LIMITS AND IS REPRESENTED IN THE CONTRACT DOCUMENTS ON TYPICAL SECTIONS AND IN TEST HOLE SCHEDULES ON THE CONSTRUCTION PLANS. THE INCLUSION OF THIS INFORMATION IS FOR THE CONTRACTOR'S CONVENIENCE. THE DEPARTMENT DOES NOT WARRANT THAT THIS INFORMATION IS REPRESENTATIVE OF CONDITIONS THROUGHOUT THE PROJECT AND THE CONTRACTOR SHALL USE THE EXISTING PAVEMENT INFORMATION AT HIS OWN RISK.

SECTION 300

7. A. THE CONTRACTOR MAY ELECT TO USE ANY OF THE FOLLOWING MATERIALS TO MEET THE REQUIREMENTS OF ITEM 302001 - GRADED AGGREGATE BASE COURSE, TYPE 'B':
   a. CRUSHED STONE (PER STANDARD SPECIFICATION 1005)
   b. CRUSHED CONCRETE (PER STANDARD SPECIFICATION 1004)
   c. BITUMINOUS CONCRETE MILLINGS (PER SPECIAL PROVISION 302514 MILLED HOT-MIX BASE COURSE)

   THE CONTRACTOR WILL NOT BE ALLOWED TO MIX DIFFERENT MATERIALS (OR SIMILAR MATERIALS FROM DIFFERENT SOURCES) TO MEET THE REQUIREMENTS OF ITEM 302001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

   ALL OF THE ABOVE LISTED MATERIALS ARE PERMITTED FOR USE ON THE JOB, PROVIDED THEY ARE SEPARATED INTO APPROVED AREAS. EACH AREA OF BASE COURSE MUST BE CONSTRUCTED USING MATERIALS FROM A SINGULAR SOURCE, FULL DEPTH, IN ORDER THAT PROPER TESTING MAY BE ACCOMPLISHED. THE CONTRACTOR AND ENGINEER SHALL AGREE ON THE LIMITS OF EACH SOURCE OF MATERIAL PRIOR TO PLACEMENT.

   B. THE QUANTITY USED FOR BASE OF EACH OF THE ABOVE LISTED MATERIALS WILL BE THE CONTRACTOR'S CHOICE, WITH THE TOTAL BEING EQUAL TO THE ACTUAL QUANTITY USED UNDER ITEM 302001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

   C. THE CONTRACTOR MAY ALSO ELECT TO RECYCLE MILLINGS FOR USE IN HOT-MIX AS PERMITTED BY THE STANDARD SPECIFICATIONS. THE CHOICE OF THE QUANTITY OF MILLINGS USED FOR THIS PURPOSE, OR FOR BASE COURSE, LIES WITH THE CONTRACTOR. ALL EXCESS MILLING MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR.

   D. BITUMINOUS CONCRETE MILLINGS MAY BE GENERATED FROM THE FOLLOWING SOURCES:
   a. MATERIAL MADE AVAILABLE WHEN MILLED ON THIS CONTRACT UNDER ITEM 760010.
   b. MATERIAL MILLED ON THIS CONTRACT AT THE CONTRACTOR'S CHOICE UNDER ITEM 202000.
   c. MILLED MATERIAL FURNISHED ON THE JOB FROM THE CONTRACTOR'S YARD OR OTHER OUTSIDE SOURCE.
   ALL MILLED MATERIALS SHALL MEET THE MATERIAL REQUIREMENTS OF ITEM 302514 - MILLED HOT-MIX BASE COURSE.

   E. PAYMENT CLARIFICATION:
   a. SHOULD THE CONTRACTOR ELECT TO MILL PORTIONS OF BITUMINOUS CONCRETE SHOWN ON THE PLANS TO BE REMOVED UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT THE COST OF MILLING THIS HOT-MIX WILL BE PAID AS ITEM 202000 - EXCAVATION AND EMBANKMENT. THE MILLINGS GENERATED MAY BE RECYCLED INTO BITUMINOUS CONCRETE, UTILIZED FOR BASE COURSE, OR DISPOSED OF TO AN APPROVED SITE. HAULING COSTS FOR DISPOSAL AND/OR RECYCLING ARE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.

   b. MILLINGS GENERATED UNDER ITEM 760502 - PAVEMENT MILLINGS, TAPERCUT MAY BE RECYCLED INTO BITUMINOUS CONCRETE, UTILIZED FOR BASE COURSE OR DISPOSED OF BY THE CONTRACTOR TO AN APPROVED SITE. NO SEPARATE PAYMENT WILL BE MADE FOR TRANSPORTING MILLINGS ON SITE OR TO AN APPROVED DISPOSAL SITE.

   c. SHOULD THE CONTRACTOR ELECT TO TEMPORARILY STOCKPILE MILLINGS ON THE JOB SITE FOR LATER USE, ALL COSTS FOR STOCKPILING AND SUBSEQUENT REHANDLING SHALL BE INCIDENTAL TO ITEM 202000 - EXCAVATION AND EMBANKMENT.

   d. MILLINGS USED FOR BASE COURSE SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF SPECIAL PROVISION 302514 - MILLED HOT-MIX BASE COURSE. NO SEPARATE PAYMENT WILL BE MADE TO FURNISH MILLINGS FROM AN OUTSIDE SOURCE OR TRANSPORT MILLINGS WITHIN THE PROJECT LIMITS. MILLINGS USED FOR BASE COURSE WILL BE PAID FOR AT THE UNIT BID PRICE FOR ITEM 302001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'.

   e. ALL COSTS TO UTILIZE MILLINGS IN RECYCLED BITUMINOUS CONCRETE WILL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE BITUMINOUS CONCRETE ITEM USING THE RECYCLED MATERIAL.

   f. SPECIAL PROVISION 302514 - MILLED HOT-MIX BASE COURSE IS PROVIDED TO SPECIFY THE MEANS OF LAY DOWN AND COMPACTION AS WELL AS THE MATERIAL REQUIREMENTS FOR MILLINGS USED AS BASE COURSE. ALL COSTS TO BRING THE MILLINGS INTO COMPLIANCE WITH THE REQUIREMENTS OF ITEM - 302514 MILLED HOT-MIX BASE COURSE ARE INCIDENTAL TO ITEM 302001 - GRADED AGGREGATE BASE COURSE, TYPE 'B'. NO PAYMENT WILL BE MADE FOR ITEM 302514 - MILLED HOT-MIX BASE COURSE. THE QUANTITY OF MILLINGS USED FOR BASE COURSE WILL BE PAID FOR UNDER ITEM 302001 - GRADED AGGREGATE BASE COURSE.

SECTION 500

8. SELECT AREAS OF CONCRETE PAVEMENT WILL REQUIRE CONSTRUCTION IN A LIMITED TIMEFRAME UNDER A WEEKEND RAMP CLOSURE. THE CONTRACTOR SHALL PLAN HIS WORK TO FULLY DEMOLISH EXISTING PAVEMENT, PREPARE SUBGRADE, AND CONSTRUCT BASE AND PAVEMENT LAYERS WITHIN THE ALLOTED TIME SUCH THAT THE CONCRETE ACHIEVES A 3500 PSI STRENGTH PRIOR TO OPENING TO TRAFFIC. THE CONTRACTOR SHALL SUBMIT PROPOSED CONCRETE MIXES TO THE DEPARTMENT IN ADVANCE TO COORDINATE REQUIREMENTS. ALL WORK ASSOCIATED WITH CONCRETE CONSTRUCTION IN LIMITED TIMEFRAMES SHALL BE INCIDENTAL TO ITEM 501006 PORTLAND CEMENT CONCRETE PAVEMENT, 12". SEE MAINTENANCE OF TRAFFIC PLANS FOR ADDENDA DETAILS.

NOT FOR CONSTRUCTION

SECTION 600

9. A. PIPE LINING NOTES:
   a. WHERE NOTED, EXISTING STORM DRAIN PIPE SHALL BE LINED WITH ULTRA-VIOLET CURED-IN-PLACE PIPE (UVCIPP). UVCIPP SHALL CONSIST OF RESIN-INFUSED, GLASS-REINFORCED PLASTIC (GRP) OF LIKE DIAMETER OF THE HOST PIPE TO BE REMEDIATED. THE UNCURED, GRP FABRIC TUBE SHALL BE PULLED THROUGH THE HOST PIPE, INFLATED AND CURED VIA ULTRA-VIOLET LIGHT TRAIN IN ORDER TO PRODUCE THE FINAL, FLOW-CONVEYING CONDUIT. UNLESS DIRECTED BY THE ENGINEER, THE HOST PIPE SHALL REMAIN IN PLACE.

   b. UVCIPP SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH ASTM F2019. UVCIPP LOADING SHALL BE IN ACCORDANCE WITH HS-20.

   c. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF STORM DRAIN INLET AND PIPE FLOW DURING LINING OPERATIONS; HOWEVER, NO FLOW SHALL BE DIVERTED OR EXISTING DRAINAGE SYSTEMS BLOCKED DURING TIMES OF INCLEMENT WEATHER OR IMMINENT RAINFALL. NO DIVERSION OR MAINTENANCE OF FLOW DEVICES SHALL REMAIN IN PLACE OVERNIGHT. WHERE NOT SPECIFIED ON THE PLANS, THE CONTRACTOR SHALL DEVELOP AND SUBMIT MAINTENANCE OF FLOW PROCEDURES TO THE ENGINEER FOR APPROVAL PRIOR TO MOBILIZATION OF LINING OPERATIONS.

   d. THE CONTRACTOR SHALL INSPECT EXISTING GROUND CONDITIONS ALONG ALL STORM DRAIN PIPES TO BE LINED BEFORE AND AFTER LINING OPERATIONS FOR SIGNS OF EROSION, SINKHOLES, OR SUBGRADE LOSS. ANY AREAS DETERMINED TO REQUIRE REPLACEMENT OF SUBGRADE MATERIAL ALONG LINED PIPE RUNS SHALL BE CONFIRMED WITH THE ENGINEER. UPON COMPLETION OF LINING OPERATIONS,IDENTIFIED AREAS SHALL BE BACKFILLED TO PRE-EXISTING, NON-ERODED CONDITIONS AND STABILIZED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

   B. DRAINAGE INLET REHABILITATION NOTES:
   a. WHERE NOTED OR AS DIRECTED BY THE ENGINEER, EXISTING STORM DRAIN INLETS SHALL REHABILITATED. AT A MINIMUM, REHABILITATION SHALL INCLUDE INLET GRATE REPLACEMENT, REPAIR OF CONCRETE DAMAGE AROUND PIPE PENETRATIONS AND OTHER AREAS, BACKFILLING OF ERODED OR DESTABILIZED AREAS AROUND INLET WITH CONCRETE BACKFILL AND INLET RESETTING IN AREAS OF DEFLECTION OR TILTING.

SECTION 700

10. WHEN SAW CUTTING OF AN EXISTING COMPOSITE PAVEMENT SECTION IS REQUIRED, IT SHALL BE PAID UNDER ITEM 762001 - SAWCUTTING, CONCRETE, FULL DEPTH.

11. IN AREAS WHERE PROPOSED CURB MEETS EXISTING CURB AND THE TWO CURB TYPES ARE NOT SIMILAR, THE PROPOSED CURB SHALL BE TRANSITIONED IN 10 LINEAR FEET, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. PAYMENT FOR THIS WORK, INCLUDING SAWCUTTING EXISTING CURB SHALL BE INCIDENTAL TO THE PROPOSED CURB ITEM.

12. WHERE PROPOSED CONCRETE SIDEWALK IS CONSTRUCTED TO MEET EXISTING SIDEWALK, THE EXISTING SIDEWALK SHALL BE SAWCUT AT THE TIE-IN POINT OR MEET THE NEAREST EXISTING SIDEWALK JOINT. ALL SAW CUTTING SHALL BE FULL DEPTH, UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER AND SHALL BE PAID FOR UNDER ITEM 762001 - SAWCUTTING, CONCRETE, FULL DEPTH.

13. STATION AND ELEVATION DATA GIVEN FOR DRAINAGE STRUCTURES ARE TO BE APPLIED TO THE CENTER OF THE GRATE FOR INLETS, AND TO THE CENTER OF THE STRUCTURE FOR JUNCTION BOXES AND MANHOLES.

14. DRAINAGE INLET GRATES ADJACENT TO THE ROAD, WITHIN THE PROJECT LIMITS, WHICH ARE NOT TYPE 1 OR TYPE 4 SHALL BE REPLACED. THE ACTUAL LOCATIONS, THE NEED FOR ANY GRATE MODIFICATIONS OR FOR NEW FRAMES SHALL BE DETERMINED BY THE ENGINEER. ALL REPLACED GRATES/FRAMES SHALL BE DELIVERED TO THE NEAREST DISTRICT MAINTENANCE YARD WITH THE COST OF DELIVERY INCIDENTAL TO ITEM 602100 - REPLACE DRAINAGE INLET GRATE(S). FINAL PAYMENT FOR REPLACED GRATES/FRAMES SHALL NOT BE MADE UNTIL RECEIPT OF DELIVERED MATERIALS IS PRODUCED, SIGNED BY A DELDOT MAINTENANCE YARD SUPERVISOR.

15. THE NEW CASTLE COUNTY DEPARTMENT OF PUBLIC WORKS SHALL SUPPLY AND THE STATE'S CONTRACTOR SHALL INSTALL NEW SELF SEALING MANHOLE FRAMES AND COVERS ON ALL COUNTY SEWER MANHOLES THAT ARE NOT BEING RELOCATED, WITHIN THE PROJECT LIMITS IN ACCORDANCE WITH THE COUNTY'S STANDARD SPECIFICATIONS. THE EXISTING MANHOLE FRAMES AND COVERS THAT ARE REMOVED SHALL BECOME THE PROPERTY OF THE STATE'S CONTRACTOR. PAYMENT SHALL BE INCIDENTAL TO ITEM 602132 - ADJUSTING AND REPAIRING EXISTING MANHOLE.

16. THE CONTRACTOR SHALL DELIVER ALL EXCESS MILLED MATERIAL TO THE DELAWARE DEPARTMENT OF TRANSPORTATION'S (Fill In yard name) MAINTENANCE YARD. THE MATERIAL SHALL BE NEATLY STOCKPILED AT THE YARD. COSTS FOR THIS WORK SHALL BE INCIDENTAL TO ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT.

17. ALL PAVED AREAS TO BE RECONSTRUCTED OR WIDENED SHALL BE SAWCUT AT THE POINT WHERE THE NEW PAVEMENT IS TO TIE INTO THE EXISTING PAVEMENT.

18. ITEM 724004 - PERMANENT IMPACT ATTENUATOR SHALL PROVIDE ATTENUATION REQUIRED FOR THE DESIGN SPEED OF THE HIGHER CLASSIFICATION FACILITY AND SHALL FULLY PROTECT THE DOWNSTREAM BARRIERS. DEPENDING ON THE SYSTEM SELECTED, THE PERMANENT IMPACT ATTENUATOR MAY ATTACH TO THE DOWNSTREAM BARRIERS. THE PERMANENT IMPACT ATTENUATOR SELECTED SHALL NOT ENCROACH CLOSER TO THE NEAREST TRAVEL LANE ON EITHER SIDE THAN THE DOWNSTREAM BARRIER BEYOND THE ATTENUATOR.

19. AT LIMITS OF P.C.C. SAFETY BARRIER, DOUBLE FACE, WHICH INTERFACE WITH TWO SEPARATE BRIDGE PARAPETS, P.C.C. SAFETY BARRIER SHALL BE TRANSITIONED FROM A 42" F SHAPE FACE TO TIE INTO THE BRIDGE PARAPET HEIGHT, WIDTH AND SHAPE OVER A DISTANCE OF TWENTY FEET, UNLESS OTHERWISE NOTED. BARRIER FACE TRANSITION SHALL BE EVENLY DISTRIBUTED AND ALL COSTS OF LABOR, MATERIALS, FORMWORK, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCIDENTAL TO THE APPLICABLE P.C.C. SAFETY BARRIER ITEM.

20. NO. 57 STONE SHALL BE SEPARATED FROM SOIL ON ALL SIDES USING A SEPARATION GEOTEXTILE, TO BE PAID AS ITEM 708002 - GEOTEXTILES, SEPARATION UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS.

PROJECT NOTES

SECTION 900

21. THIS PROJECT IS COVERED UNDER AN NPDES GENERAL PERMIT FOR CONSTRUCTION. UNDER THE GENERAL PERMIT, COMPLIANCE WITH DELDOT'S APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLANS WILL CONSTITUTE COMPLIANCE WITH THE NPDES INDUSTRIAL PERMITTING REQUIREMENTS FOR THIS CONSTRUCTION PROJECT. A COPY OF THE NPDES GENERAL PERMIT AND NOI IS KEPT ON FILE IN EACH OF THE CONSTRUCTION OFFICES AND THE DEPARTMENT'S STORMWATER SECTION. A COPY OF THE GENERAL PERMIT OR THE NOI CAN BE OBTAINED UPON REQUEST FROM EITHER THE DEPARTMENT'S STORMWATER ENGINEER OR THE APPROPRIATE CONSTRUCTION ENGINEER.

MISCELLANEOUS

21. THE CONTRACTOR SHALL CONTACT JAMILA JONES, THE CHIEF OF SCHEDULING FOR DART FIRST STATE, 14 DAYS PRIOR TO THE START OF CONSTRUCTION AT 302-576-6019.

22. ANY STAGING AND/OR STOCKPILE AREA(S) OUTSIDE THE PROJECT'S LIMIT OF CONSTRUCTION (LOC) THAT INDIVIDUALLY OR CUMULATIVELY ARE LARGER THAN 10,000 SQUARE FEET, MUST BE APPROVED BY DELDOT'S ARCHAEOLOGIST. CONTACT THE CONSTRUCTION AREA ENGINEER WHO WILL COORDINATE WITH DELDOT'S ARCHAEOLOGIST. WITHIN 30 DAYS, DELDOT WILL:
    1) APPROVE THE USE OF THE PROPOSED STAGING AND STOCKPILE AREA(S);
    2) REJECT THE REQUEST; OR
    3) PERFORM AN ARCHAEOLOGICAL SURVEY TO DETERMINE WHETHER TO APPROVE OR REJECT THE REQUEST, WHICH MAY TAKE UP TO 3 MONTHS. IF AN ARCHAEOLOGICAL SURVEY IS NECESSARY, DELDOT OR A CONSULTANT ON ITS BEHALF WILL UNDERTAKE THE SURVEY.

23. ENVIRONMENTAL COMPLIANCE - SEE ENVIRONMENTAL COMPLIANCE PLAN FOR FURTHER RESTRICTIONS/GUIDANCE ASSOCIATED WITH THIS PROJECT.

RAILROAD COORDINATION - NORFOLK SOUTHERN

24. ALL WORK ON, OVER, UNDER, OR ADJACENT TO NORFOLK SOUTHERN (NS) RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE NORFOLK SOUTHERN "SPECIAL PROVISIONS FOR PROTECTION OF RAILWAY INTERESTS" (NS SPECIAL PROVISIONS).

25. NORFOLK SOUTHERN CONTACT INFORMATION:
    NORFOLK SOUTHERN CORPORATION
    BRIDGES AND STRUCTURES DEPARTMENT
    ATTN. MR. S.A. OVERBEY, ENGINEER PUBLIC IMPROVEMENTS
    1200 PEACHTREE STREET NE
    ATLANTA, GA 30309
    PHONE: (404)582-5588
    E-MAIL:SCOTT.OVERBEY@NSCORP.COM

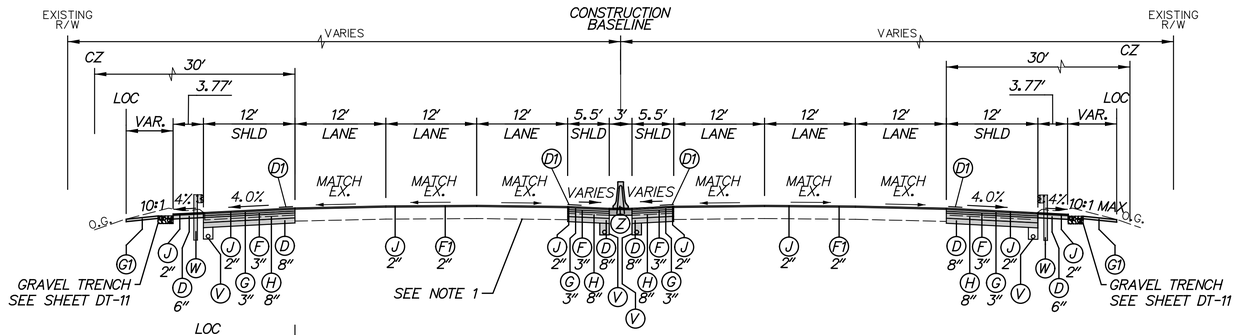
26. "ONE CALL" SERVICES DO NOT LOCATE BURIED RAILROAD SIGNAL AND COMMUNICATIONS LINES. THE CONTRACTOR SHALL CONTACT THE RAILROAD'S REPRESENTATIVE TWO (2) DAYS IN ADVANCE OF THOSE PLACES WHERE EXCAVATION, PILE DRIVING, OR HEAVY LOADS MAY DAMAGE RAILROAD UNDERGROUND LINES ON RAILROAD PROPERTY. UPON REQUEST FROM THE CONTRACTOR OR AGENCY, RAILROAD SIGNAL FORCES WILL LOCATE AND PAINT MARK OR FLAG RAILROAD UNDERGROUND SIGNAL, COMMUNICATION, AND POWER LINES IN THE AREA TO BE DISTURBED FOR THE CONTRACTOR. THE CONTRACTOR SHALL AVOID EXCAVATION OR OTHER DISTURBANCE OF THESE LINES WHICH ARE CRITICAL TO THE SAFETY OF THE RAILROAD AND THE PUBLIC. IF DISTURBANCE OR EXCAVATION IS REQUIRED NEAR A BURIED RAILROAD SIGNAL, COMMUNICATION, OR POWER LINE, THE LINE SHALL BE POTHOLED MANUALLY WITH CAREFUL HAND EXCAVATION BY THE CONTRACTOR AND PROTECTED BY THE CONTRACTOR DURING THE COURSE OF THE DISTURBANCE UNDER THE SUPERVISION AND DIRECTION OF A RAILROAD SIGNAL REPRESENTATIVE.

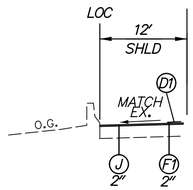
27. ALL UTILITY INSTALLATIONS OR RELOCATIONS ON NORFOLK SOUTHERN RIGHT-OF-WAY THAT ARE REQUIRED IN CONJUNCTION WITH THIS PROJECT CAN BE INSTALLED OR RELOCATED AS PART OF THE PROJECT PROVIDED THE CONSTRUCTION IS PERFORMED BY THE PROJECT CONTRACTOR OR PROJECT CONTRACTOR'S SUB-CONTRACTOR. HOWEVER, THE UTILITY MUST SUBMIT AN APPLICATION FOR THE INSTALLATION OR RELOCATION TO AECOM FOR APPROPRIATE HANDLING FOR LICENSE AGREEMENT AND APPLIANCE FEES. FOR UTILITY APPLICATIONS GO TO: WWW.NSCORP.COM >REAL ESTATE > NS SERVICES >WIRE, PIPELINE, AND FIBER OPTICS PROJECTS. NOTE: LICENSE AGREEMENT MUST BE EXECUTED PRIOR TO UTILITY BEING INSTALLED OR RELOCATED.

28. FOR PROJECTS EXCEEDING 30 DAYS OF CONSTRUCTION, CONTRACTOR SHALL PROVIDE THE FLAGMAN A SMALL WORK AREA WITH A DESK/COUNTER AND CHAIR WITHIN THE FIELD/SITE TRAILER, INCLUDING THE USE OF BATHROOM FACILITIES, WHERE THE FLAGMAN CAN CHECK IN/OUT WITH THE PROJECT, AS WELL AS TO THE FLAGMAN'S HOME TERMINAL. THE WORK AREA SHOULD PROVIDE ACCESS TO TWO (2) ELECTRICAL OUTLETS FOR RECHARGING RADIO(S), AND A LAPTOP COMPUTER; AND HAVE THE ABILITY TO PRINT OFF NEEDED DOCUMENTATION AND ORDERS AS NEEDED AT THE FIELD/SITE TRAILER. THIS SHOULD AID IN MAXIMIZING THE FLAGMAN'S TIME AND EFFICIENCY ON THE PROJECT.

29. NORFOLK SOUTHERN WILL BE PROVIDED AS-BUILT DRAWINGS SHOWING THE ACTUAL CLEARANCES AS CONSTRUCTED. DEPTH, SIZE, AND LOCATION OF ALL FOUNDATION COMPONENTS SHALL BE SHOWN ON THE DRAWINGS.

NOT FOR CONSTRUCTION

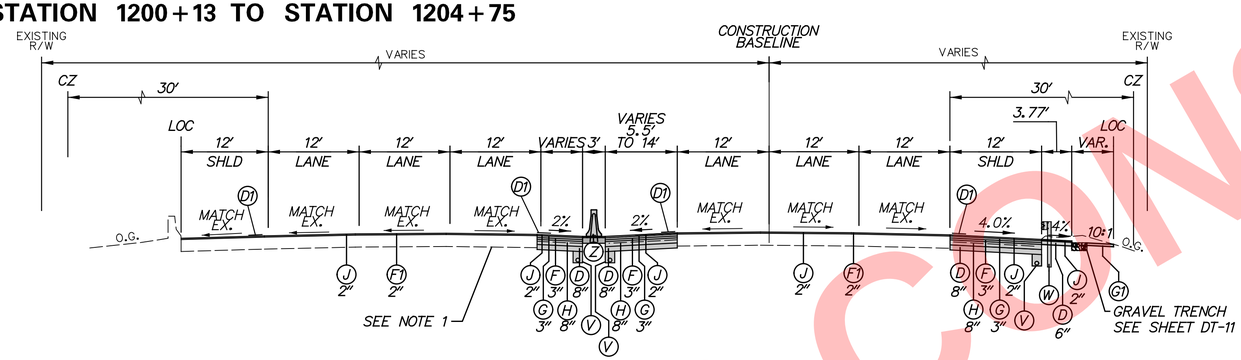




I-95 NORMAL SECTION

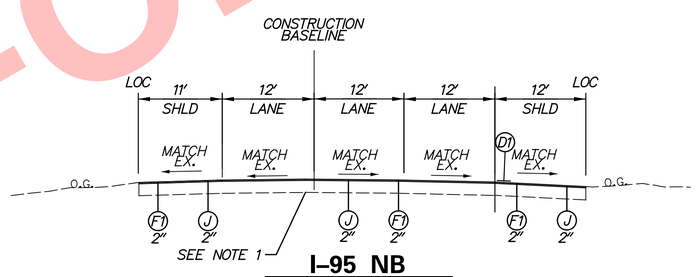
STATION 1200+13 TO STATION 1204+75
STATION 1210+85 TO STATION 1216+41
STATION 1221+53 TO STATION 1225+97
STATION 1228+71 TO STATION 1255+89

STATION 1200+13 TO STATION 1204+75



I-95 NORMAL SECTION

STATION 3041+82 TO STATION 3047+97



I-95 NB

STATION 3003+80 TO STATION 3041+82

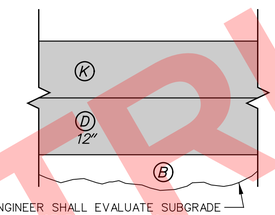
NOTES:

1. EXISTING COMPOSITE PAVEMENT SECTION, TRAVEL LANES:
   3" HOT MIX ASPHALT
   10" PCC PAVEMENT
   8" SELECT BORROW

   EXISTING PAVEMENT SECTION, INSIDE SHOULDER:
   3" HOT MIX ASPHALT
   6" CRUSHER RUN

   EXISTING PAVEMENT SECTION, OUTSIDE SHOULDER:
   3" HOT MIX ASPHALT
   4" BASE COURSE

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C'	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B'	2.25"	4"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	4"	8"



THE ENGINEER SHALL EVALUATE SUBGRADE FOLLOWING REMOVAL OF EXISTING APPROACH SLAB TO DETERMINE IF BORROW, TYPE A IS REQUIRED

I-95 CONCRETE PAVEMENT ADJACENT TO APPROACH SLABS

SOUTHBOUND:

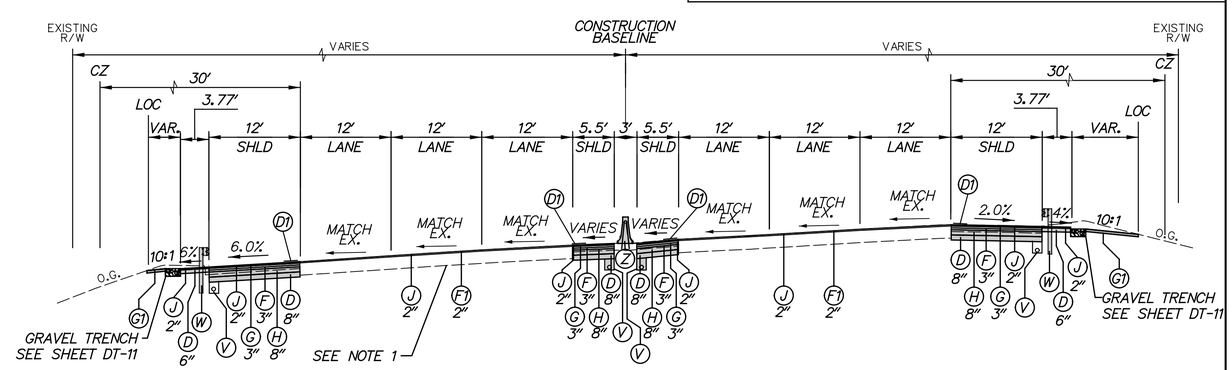
STATION 1204+30 TO STATION 1204+69
STATION 1210+58 TO STATION 1210+96
STATION 1225+84 TO STATION 1226+04
STATION 1228+55 TO STATION 1228+75

NORTHBOUND:

STATION 1204+64 TO STATION 1205+02
STATION 1210+95 TO STATION 1211+33
STATION 1225+92 TO STATION 1226+12
STATION 1228+64 TO STATION 1228+84

LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP



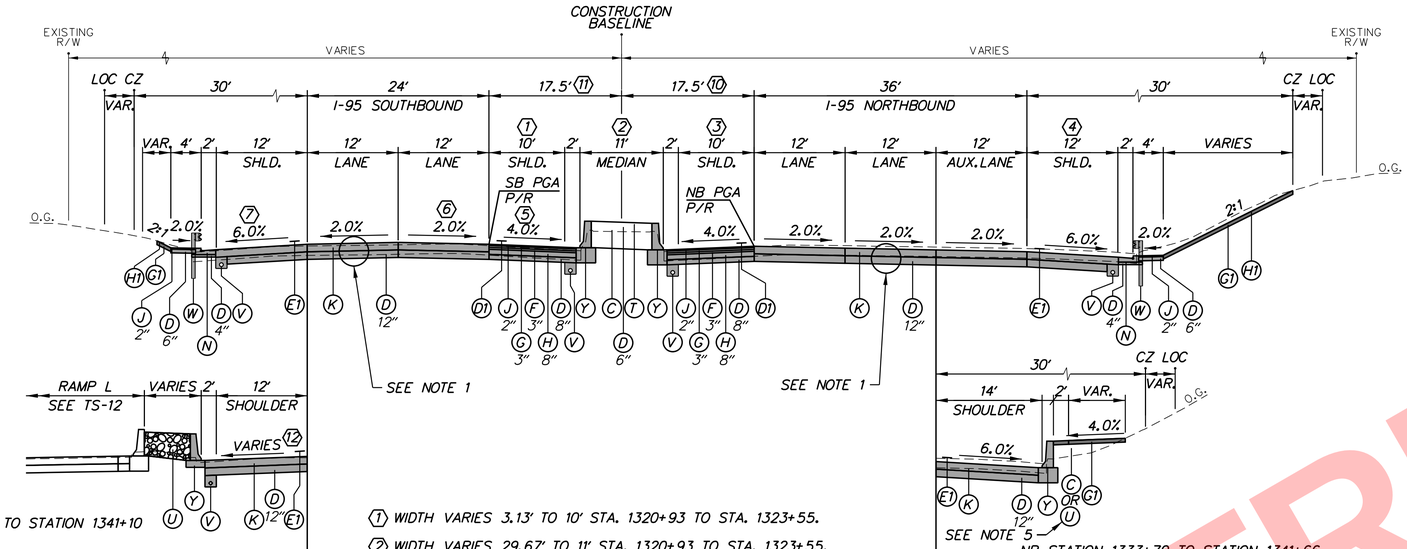
I-95 SUPERELEVATED SECTION

STATION 1255+89 TO STATION 1264+95

NOT FOR CONSTRUCTION

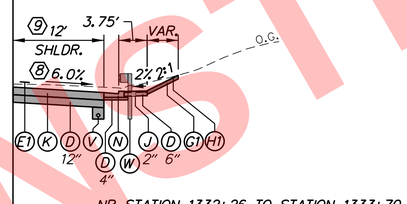
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404 / BRIDGE NO. / COUNTY NEW CASTLE / DESIGNED BY: DHW / CHECKED BY: PAH	TYPICAL SECTIONS

TS-01
SHEET NO. 1-8
TOTAL SHTS. 1-178

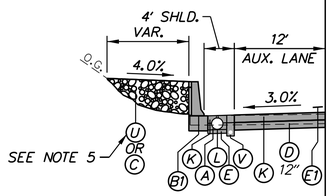


NB STATION 1333+70 TO STATION 1341+66

SB STATION 1339+79 TO STATION 1341+10



NB STATION 1332+26 TO STATION 1333+70



SB STATION 1328+31 TO STATION 1329+09
SB STATION 1331+67 TO STATION 1332+22
SB STATION 1336+88 TO STATION 1337+77

(1) WIDTH VARIES 3.13' TO 10' STA. 1320+93 TO STA. 1323+55.

(2) WIDTH VARIES 29.67' TO 11' STA. 1320+93 TO STA. 1323+55.

(3) WIDTH VARIES 3.13' TO 10' STA. 1320+93 TO STA. 1323+59.

(4) WIDTH VARIES 7' TO 12' STA. 1320+91 TO STA. 1323+01.

(5) TRANSITION SLOPE -2% AT STA. 1320+91 TO 4% AT STA. 1321+24.

(6) SLOPE AT -2% STA. 1320+91 TO STA. 1322+65.
TRANSITION SLOPE -2% AT STA. 1322+65 TO 0% AT STA. 1323+55.
TRANSITION SLOPE 0% AT STA. 1323+55 TO 2% AT STA. 1324+45.

(7) SLOPE AT 3% STA. 1320+93 TO STA. 1326+45. TRANSITION SLOPE -3% AT STA. 1324+45 TO -2.5% AT STA. 1324+76. HOLD -2.5% TO STA. 1326+37.

(8) TRANSITION SLOPE FROM 2.5% AT STA. 1330+93 TO 3% AT STA. 1331+13. SLOPE AT 3% FROM STA. 1331+13 TO STA. 1332+78.
TRANSITION SLOPE FROM 3% AT STA. 1332+78 TO 6% AT STA. 1333+38.

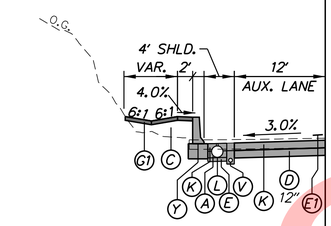
(9) WIDTH VARIES 19.54' TO 12' STA. 1330+93 TO STA. 1333+38.

(10) WIDTH VARIES 20' TO 17.5' STA. 1320+93 TO STA. 1322+66.

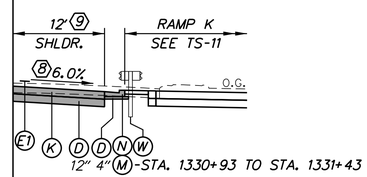
(11) WIDTH VARIES 19.9' TO 17.5' STA. 1320+93 TO STA. 1322+66.

(12) TRANSITION SLOPE -2.57% AT STA. 1339+79 TO 3.95% AT STA. 1340+36.

NB STATION 1332+13 TO STATION 1332+26

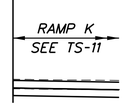


SB STATION 1329+09 TO STATION 1331+67
SB STATION 1332+22 TO STATION 1336+88

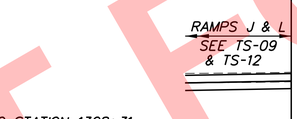


-STA. 1330+93 TO STA. 1331+43

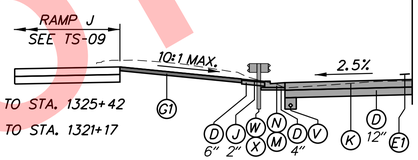
NB STATION 1330+93 TO STATION 1332+13



NB STATION 1324+99 TO STATION 1330+93



SB STATION 1326+37 TO STATION 1328+31
SB STATION 1337+77 TO STATION 1339+79



(X)-STA. 1324+99 TO STA. 1325+42

(M)-STA. 1320+97 TO STA. 1321+17

SB STATION 1324+61 TO STATION 1326+37

I-95 NORMAL SECTION

NB STATION 1320+93 TO STATION 1341+66

SB STATION 1320+93 TO STATION 1340+36

LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (O) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:

1. EXISTING NORTHBOUND COMPOSITE PAVEMENT SECTION (ROADWAY):
   2.8" HOT MIX ASPHALT
   10.5" PCC PAVEMENT
   4.3" SOIL CEMENT
   7.4" BASE COURSE

   EXISTING SOUTHBOUND COMPOSITE PAVEMENT SECTION (ROADWAY):
   3" HOT MIX ASPHALT
   10.5" PCC PAVEMENT
   3.5" SOIL CEMENT
   5.5" BASE COURSE

   EXISTING INSIDE NORTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7.5" HOT MIX
   7.5" CRUSHER RUN

   EXISTING INSIDE SOUTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7" HOT MIX
   8" CRUSHER RUN

   EXISTING OUTSIDE NORTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   5" HOT MIX
   7.5" BASE COURSE/STONE MIX

   EXISTING OUTSIDE SOUTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7.5" HOT MIX
   6" SOIL CEMENT/BASE COURSE/STONE MIX

2. WHEN ROCK IS PRESENT BEHIND PROPOSED GUARDRAIL OR CONCRETE BARRIER, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER TO DETERMINE THE GRADING OF FINISHED GROUND BETWEEN THE BACK EDGE OF MAINTENANCE PAVEMENT OR CONCRETE BARRIER FOOTER AND THE ROCK FACE. THE SLOPE SHALL NOT BE LESS THAN 4% AND NOT MORE THAN 2:1 SLOPED TOWARDS THE ROADWAY. ROCK SHALL NOT BE EXCAVATED BEHIND THE MAINTENANCE PAVEMENT OR CONCRETE BARRIER WITHOUT APPROVAL BY THE ENGINEER AND ANY ROCK REMOVED WITHOUT APPROVAL WILL BE PAID FOR UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT. THE FINISHED GROUND SURFACE IN THESE AREAS SHALL EITHER BE 6" TOPSOIL, SEED, AND EROSION CONTROL BLANKET (IF REQUIRED), OR EXPOSED ROCK FACE.

3. PGA - POINT OF GRADE APPLICATION
   P/R - POINT OF ROTATION

4. 8% MAXIMUM SHOULDER ROLLOVER

5. UNDER-BRIDGE TREATMENT NOTES:

   A. UNDER THE 6TH STREET BRIDGE (NB), EXTEND MAINTENANCE PAVEMENT BEHIND GUARDRAIL TO ROCK FACE, SLOPED AT 2% TOWARDS THE CURB.

   B. UNDER THE 7TH STREET, 8TH STREET, AND 9TH STREET BRIDGES (SB), BETWEEN THE CONCRETE BARRIER AND ABUTMENT OR ROCK FACE, PLACE R-4 RIPRAP. R-4 RIPRAP TO BE SEPARATED FROM SOIL WITH ITEM 708003 - GEOTEXTILES, RIPRAP.

   C. UNDER THE 9TH STREET AND 10TH STREET BRIDGES (NB), BETWEEN THE CONCRETE BARRIER AND PIER, PLACE NO. 57 STONE INCIDENTAL TO BARRIER. SEE BARRIER DETAILS.

   D. UNDER THE 9TH STREET AND 10TH STREET BRIDGES (NB), BETWEEN THE PIER AND ABUTMENT, PLACE R-4 RIPRAP. R-4 RIPRAP TO BE SEPARATED FROM SOIL WITH ITEM 708003 - GEOTEXTILES, RIPRAP.

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C'	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B'	2.25"	4"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

NOT TO SCALE

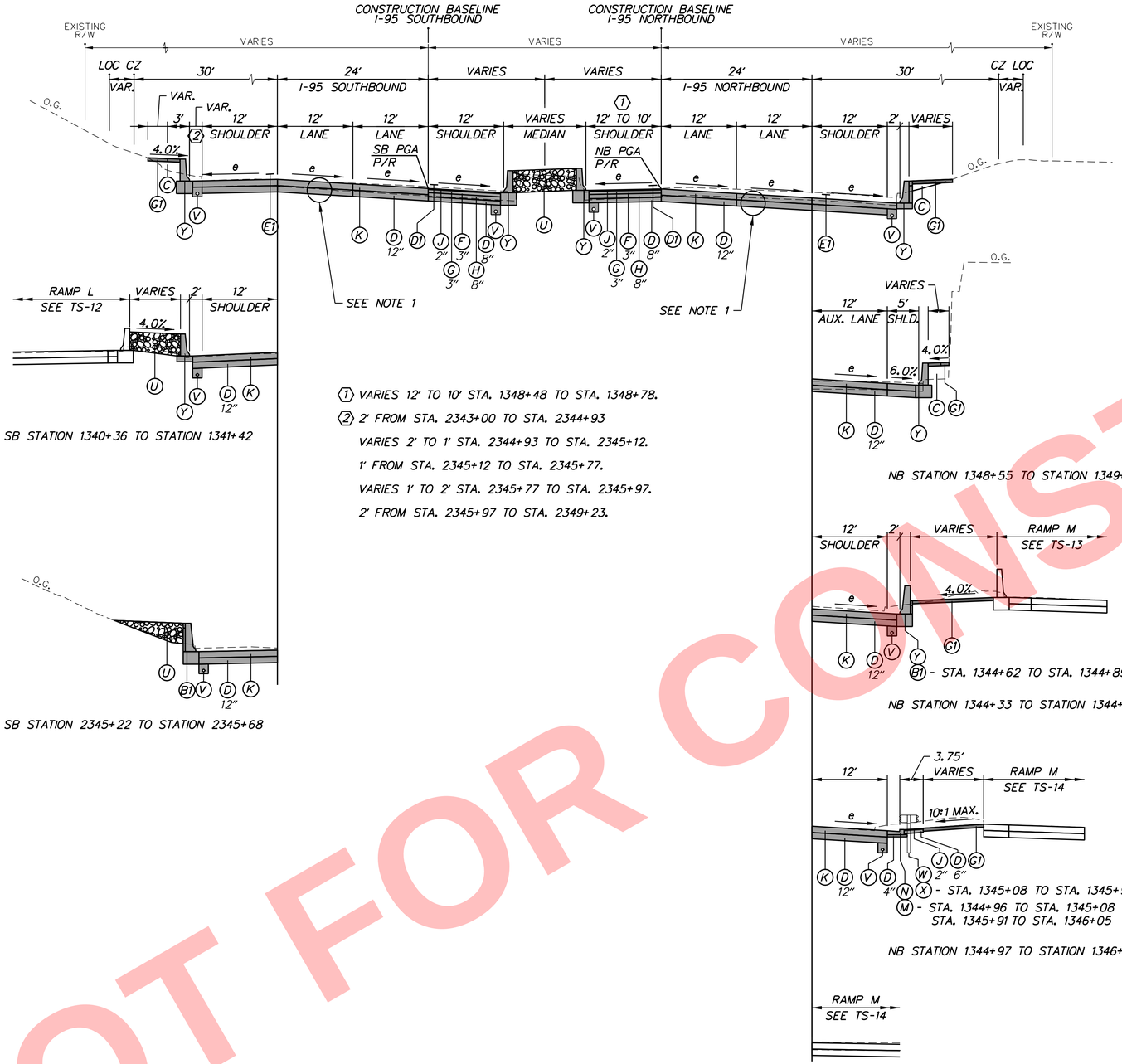
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

TYPICAL SECTIONS

SECTION
WRA
SHEET NO.
9

TS-02



(1) VARIES 12' TO 10' STA. 1348+48 TO STA. 1348+78.

(2) 2' FROM STA. 2343+00 TO STA. 2344+93
VARIES 2' TO 1' STA. 2344+93 TO STA. 2345+12.
1' FROM STA. 2345+12 TO STA. 2345+77.
VARIES 1' TO 2' STA. 2345+77 TO STA. 2345+97.
2' FROM STA. 2345+97 TO STA. 2349+23.

I-95 SUPERELEVATED SECTION (Emax=6%)

NB STATION 1341+66 TO STATION 1349+04
SB STATION 1340+36 TO STATION 1343+00
SB STATION 2343+00 TO STATION 2349+23

LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:

1. EXISTING NORTHBOUND COMPOSITE PAVEMENT SECTION (ROADWAY):
   2.8" HOT MIX ASPHALT
   10.5" PCC PAVEMENT
   4.3" SOIL CEMENT
   7.4" BASE COURSE

   EXISTING SOUTHBOUND COMPOSITE PAVEMENT SECTION (ROADWAY):
   3" HOT MIX ASPHALT
   10.5" PCC PAVEMENT
   3.5" SOIL CEMENT
   5.5" BASE COURSE

   EXISTING INSIDE NORTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7.5" HOT MIX
   7.5" CRUSHER RUN

   EXISTING INSIDE SOUTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7" HOT MIX
   8" CRUSHER RUN

   EXISTING OUTSIDE NORTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   5" HOT MIX
   7.5" BASE COURSE/STONE MIX

   EXISTING OUTSIDE SOUTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7.5" HOT MIX
   6" SOIL CEMENT/BASE COURSE/STONE MIX

2. PGA - POINT OF GRADE APPLICATION
   P/R - POINT OF ROTATION

3. 8% MAXIMUM SHOULDER ROLLOVER

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C'	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B'	2.25"	4"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOT FOR CONSTRUCTION

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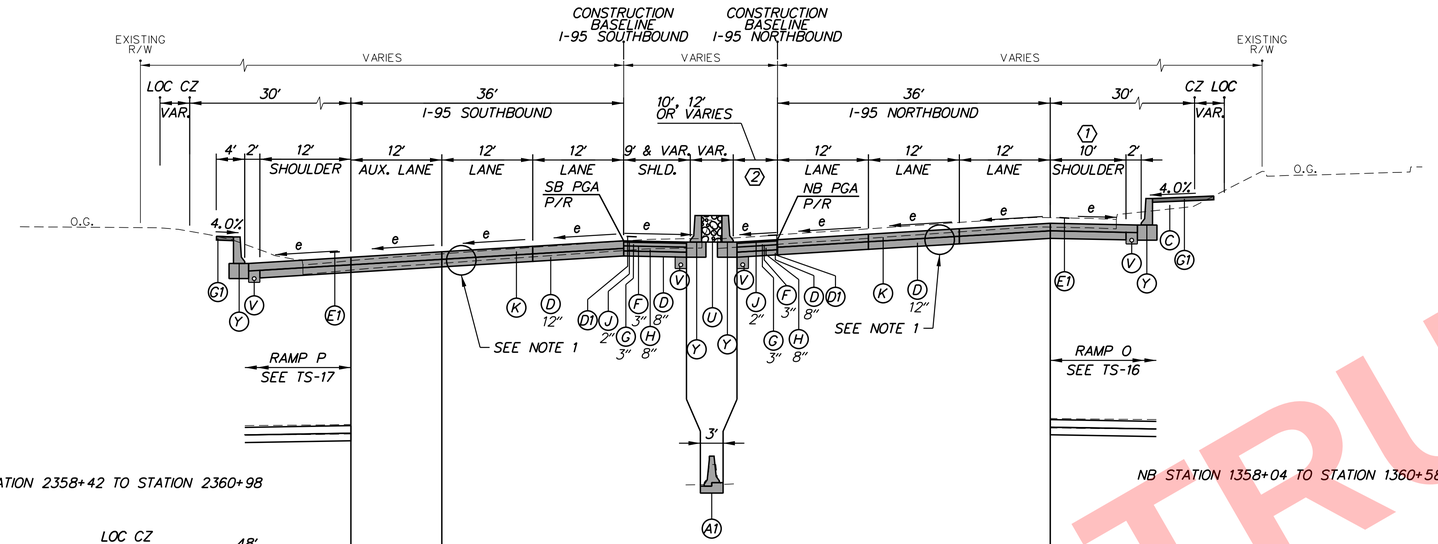
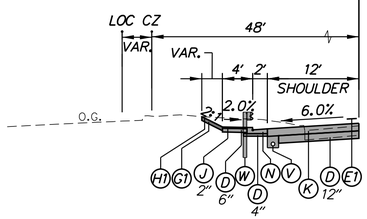
ADDENDA / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-03
			COUNTY NEW CASTLE	DESIGNED BY: JAD		SECTION WRA
				CHECKED BY: BRT		SHEET NO. 10



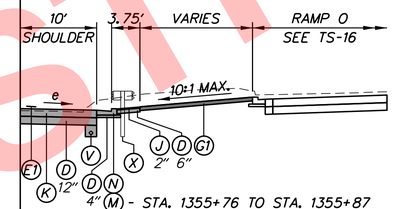
SB STATION 2358+42 TO STATION 2360+98

NB STATION 1358+04 TO STATION 1360+58

STATION 1358+69 TO STATION 1360+58



SB STATION 2357+13 TO STATION 2358+42

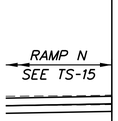


NB STATION 1355+76 TO STATION 1358+04

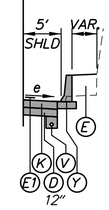
(1) WIDTH VARIES 3' TO 10' STA. 1352+02 TO STA. 1353+04.

(2) WIDTH VARIES 10' TO 12' STA. 1350+01 TO STA. 1350+31.

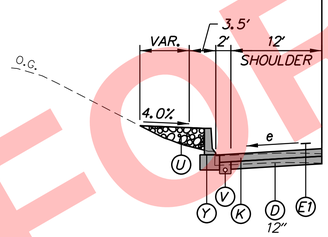
(M) - STA. 1355+76 TO STA. 1355+87
STA. 1357+91 TO STA. 1358+04



SB STATION 2350+31 TO STATION 2353+75



NB STATION 1349+04 TO STATION 1351+97



SB STATION 2349+23 TO STATION 2350+31

LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 301XXX - 15" CPP-S SLOTTED DRAIN (HIGH DENSITY POLYETHYLENE SMOOTH INTERIOR PIPE WITH ALUMINUM SLOTTED GRATE)
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:

1. EXISTING NORTHBOUND COMPOSITE PAVEMENT SECTION (ROADWAY):
   2.8" HOT MIX ASPHALT
   10.5" PCC PAVEMENT
   4.3" SOIL CEMENT
   7.4" BASE COURSE

   EXISTING SOUTHBOUND COMPOSITE PAVEMENT SECTION (ROADWAY):
   3" HOT MIX ASPHALT
   10.5" PCC PAVEMENT
   3.5" SOIL CEMENT
   5.5" BASE COURSE

   EXISTING INSIDE NORTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7.5" HOT MIX
   7.5" CRUSHER RUN

   EXISTING INSIDE SOUTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7" HOT MIX
   8" CRUSHER RUN

   EXISTING OUTSIDE NORTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   5" HOT MIX
   7.5" BASE COURSE/STONE MIX

   EXISTING OUTSIDE SOUTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7.5" HOT MIX
   6" SOIL CEMENT/BASE COURSE/STONE MIX

2. PGA - POINT OF GRADE APPLICATION
   P/R - POINT OF ROTATION

3. 8% MAXIMUM SHOULDER ROLLOVER

I-95 SUPERELEVATED SECTION (Emax=6%)
NB STATION 1349+04 TO STATION 1360+58
SB STATION 2349+23 TO STATION 2360+98

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C'	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B'	2.25"	4"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOT FOR CONSTRUCTION

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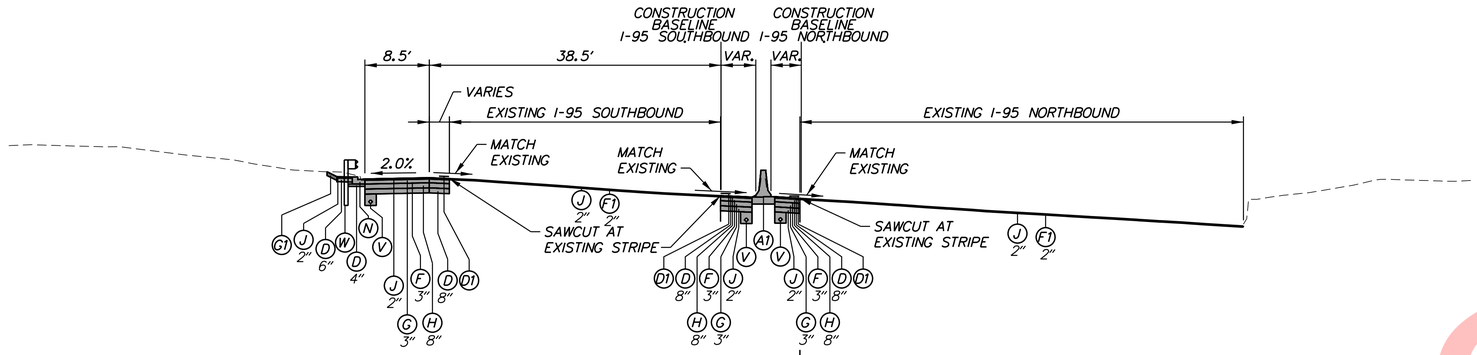
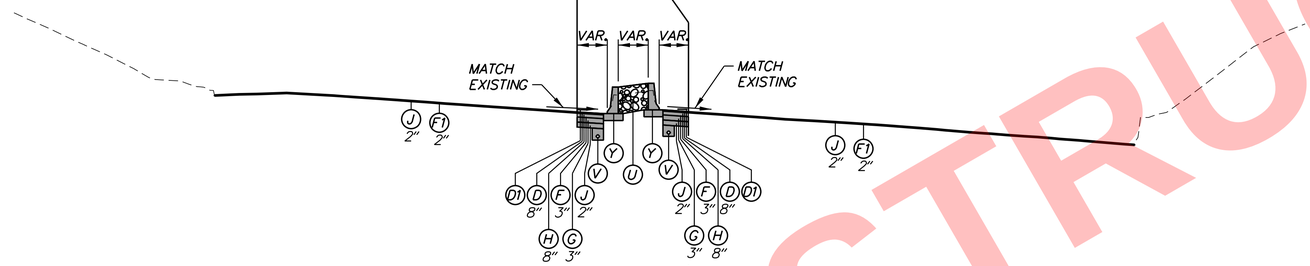
ADDENDA / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-04
			COUNTY NEW CASTLE	DESIGNED BY: JAD		SECTION WRA
				CHECKED BY: BRT		SHEET NO. 11

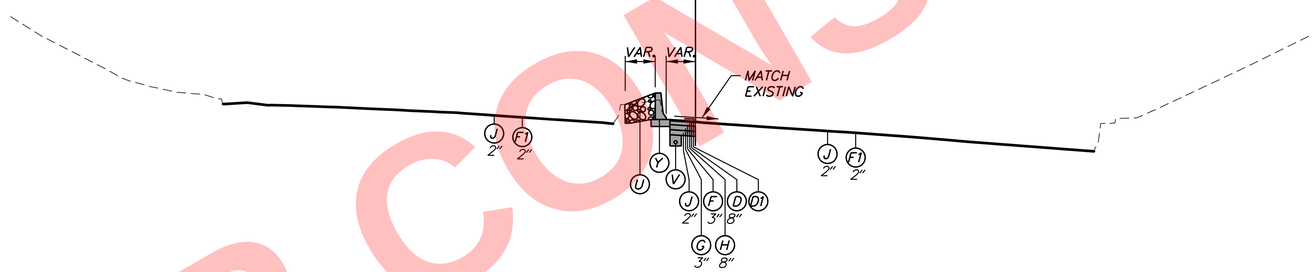


SB STATION 2452+32 TO STATION 2457+50



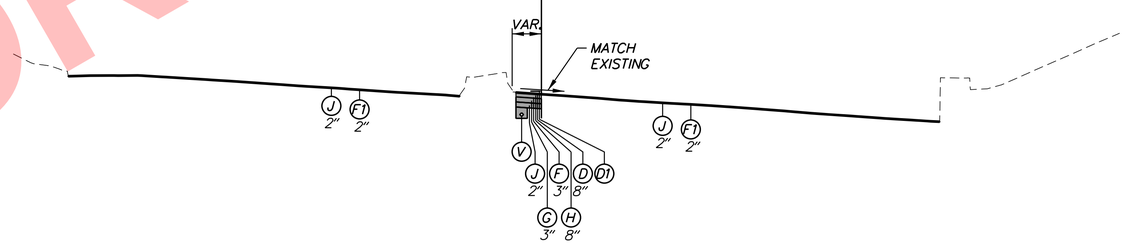
SB STATION 2455+00 TO STATION 2457+50

NB STATION 1454+98 TO STATION 1457+46



SB STATION 2457+50 TO STATION 2459+00

NB STATION 1457+46 TO STATION 1458+12



SB STATION 2459+00 TO STATION 2463+78
SB STATION 1463+70 TO STATION 1484+19

NB STATION 1458+12 TO STATION 1458+95

LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (O) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
- ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:

1. EXISTING NORTHBOUND COMPOSITE PAVEMENT SECTION (ROADWAY):
   2.8" HOT MIX ASPHALT
   10.5" PCC PAVEMENT
   4.3" SOIL CEMENT
   7.4" BASE COURSE

   EXISTING SOUTHBOUND COMPOSITE PAVEMENT SECTION (ROADWAY):
   3" HOT MIX ASPHALT
   10.5" PCC PAVEMENT
   3.5" SOIL CEMENT
   5.5" BASE COURSE

   EXISTING INSIDE NORTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7.5" HOT MIX
   7.5" CRUSHER RUN

   EXISTING INSIDE SOUTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7" HOT MIX
   8" CRUSHER RUN

   EXISTING OUTSIDE NORTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   5" HOT MIX
   7.5" BASE COURSE/STONE MIX

   EXISTING OUTSIDE SOUTHBOUND HOT MIX PAVEMENT SECTION (SHOULDER):
   7.5" HOT MIX
   6" SOIL CEMENT/BASE COURSE/STONE MIX

2. PGA - POINT OF GRADE APPLICATION
   P/R - POINT OF ROTATION

3. 8% MAXIMUM SHOULDER ROLLOVER

I-95 SHOULDER RECONSTRUCTION
NB STATION 1452+10 TO STATION 1458+95
SB STATION 2451+90 TO STATION 2457+50

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C'	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B'	2.25"	4"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-05 SECTION WRA
			COUNTY NEW CASTLE	DESIGNED BY: JAD		SHEET NO. 12
				CHECKED BY: BRT		

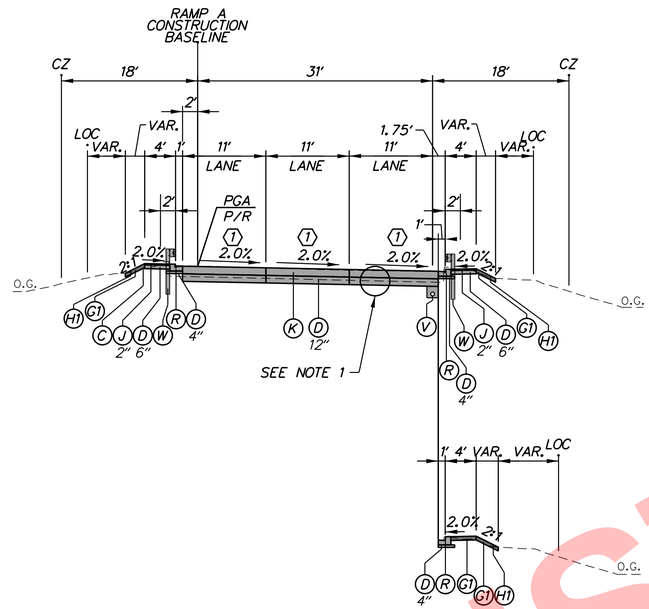
NOTES:

1. EXISTING RAMP COMPOSITE PAVEMENT SECTION (ROADWAY):
   1-1/4" HOT LAID ASPHALTIC CONCRETE WEARING COURSE
   1-3/4" HOT LAID ASPHALTIC CONCRETE BINDER COURSE
   8" PORTLAND CEMENT CONCRETE BASE COURSE
   6" QUARRY WASTE

2. PGA - POINT OF GRADE APPLICATION
   P/R - POINT OF ROTATION

MATERIAL	LIFT THICKNESS	
	MINIMUM	MAXIMUM
BITUMINOUS CONCRETE, TYPE 'C'	1.25"	2"
BITUMINOUS CONCRETE, TYPE 'B'	2.25"	4"
BITUMINOUS CONCRETE BASE COURSE	3"	6"
GRADED AGGREGATE BASE COURSE	4"	8"

(1) TRANSITION SLOPE TO EXISTING STA. 115+82 TO STA. 116+11.



STATION 115+72 TO STATION 116+11

RAMP A NORMAL SECTION
STATION 115+13 TO STATION 116+11

LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOT FOR CONSTRUCTION

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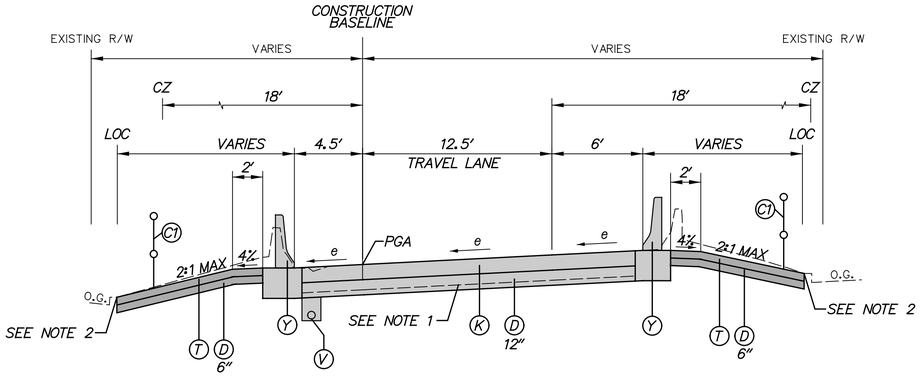
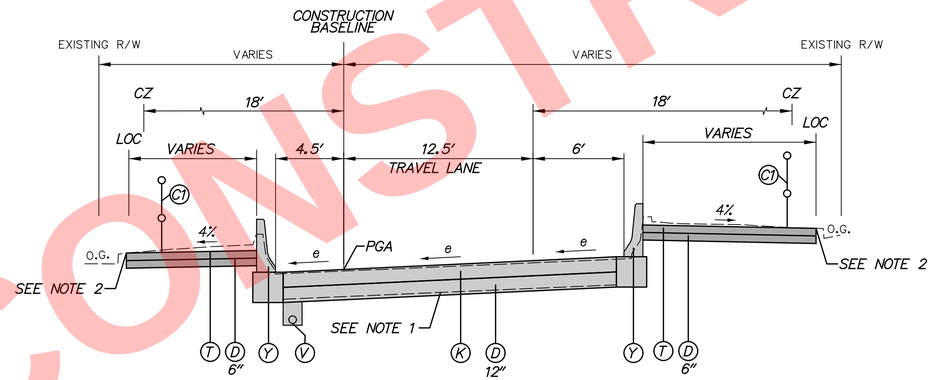
ADDENDA / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-06
			COUNTY NEW CASTLE	DESIGNED BY: SEP		SECTION WRA
				CHECKED BY: BRT		SHEET NO. 13



RAMP F (Emax=6%)

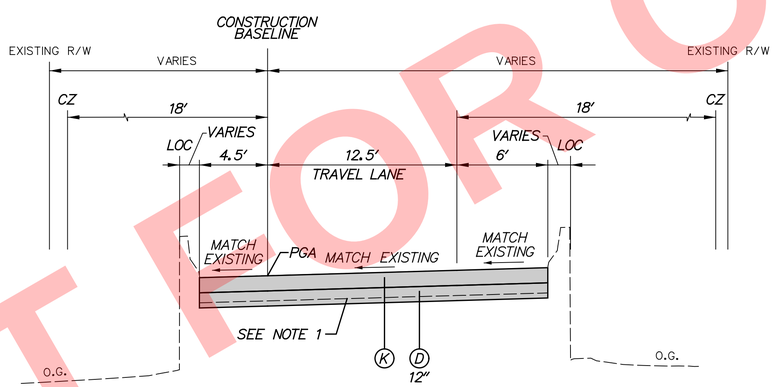
STATION 707+63 TO STATION 708+25

STATION 710+65 TO STATION 711+82



RAMP F (Emax=6%)

STATION 708+25 TO STATION 710+65



RAMP F (Emax=6%)

STATION 707+20 TO STATION 707+63

STATION 711+82 TO STATION 712+66

LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5″
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4″ LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12″
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18″, 16 GAGE, 2 2/3″ X 1/2″ CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6″
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6″
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42″
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54″
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6″ DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

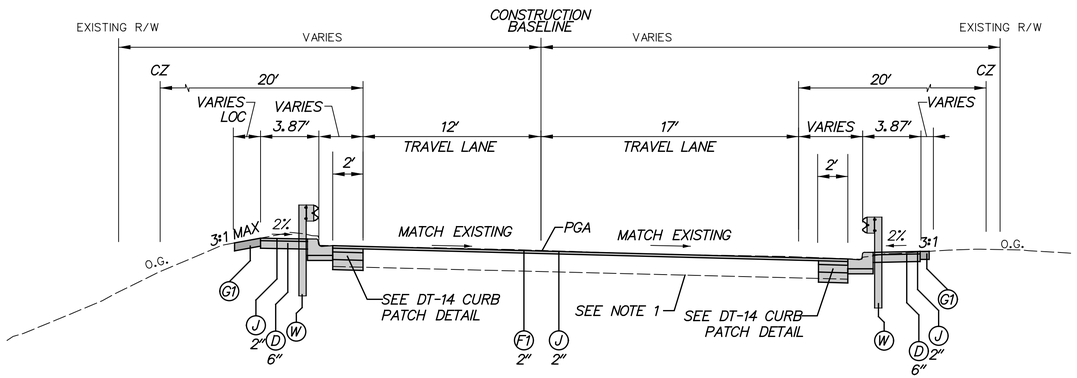
NOTES:

1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10″ REINFORCED PCC PAVEMENT
   4″ SELECT BORROW CEMENT TREATED SUBBASE
   4″ SELECT BORROW
2. TOE OF SLOPE SHALL MATCH EXISTING GRADE AT THE TOP OF CURB ALONG ADJECENT PARKING LOTS

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-07
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-14
					CHECKED BY: PAH		TOTAL SHTS. 1-178

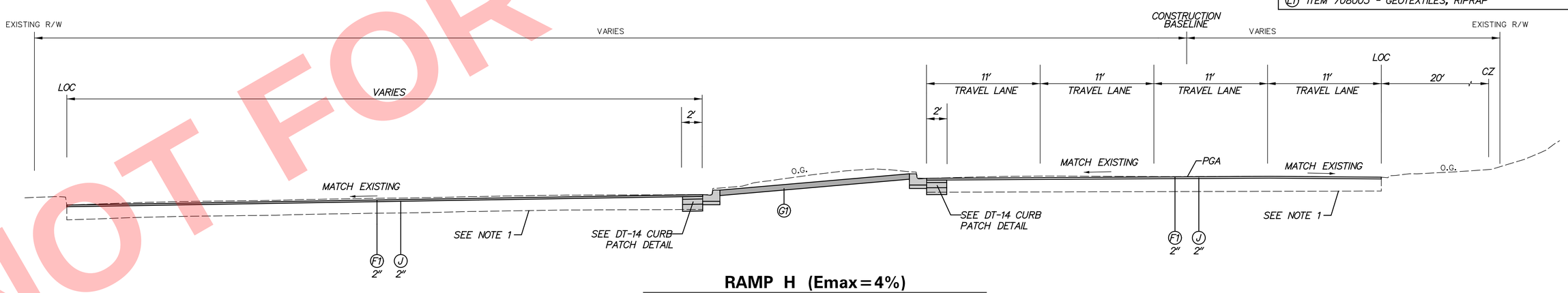
NOTES:
1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   2" BITUMINOUS CONCRETE, TYPE C
   6" BITUMINOUS CONCRETE, TYPE B
   8" PREMIXED BASE COURSE



RAMP H (Emax=4%)
STATION 812+84 TO STATION 815+78

LEGEND

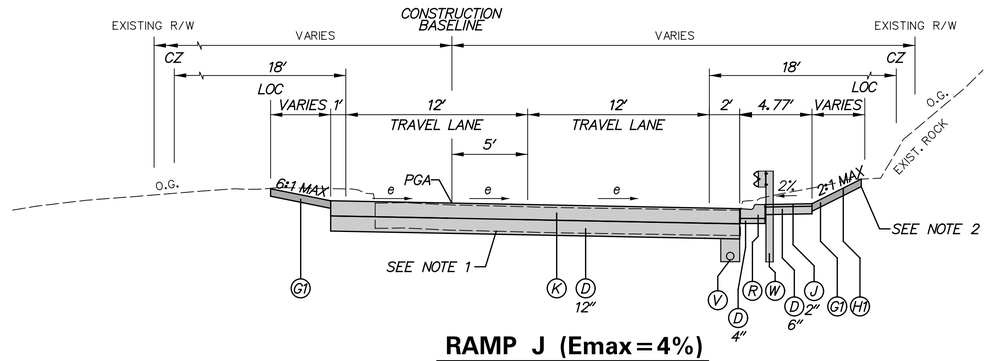
- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP



RAMP H (Emax=4%)
STATION 807+00 TO STATION 812+84

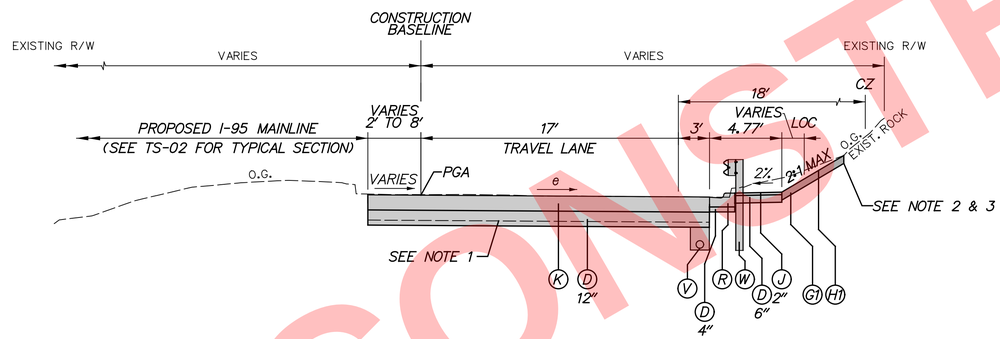
NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-08
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-15
					CHECKED BY: PAH		TOTAL SHTS. 1-178



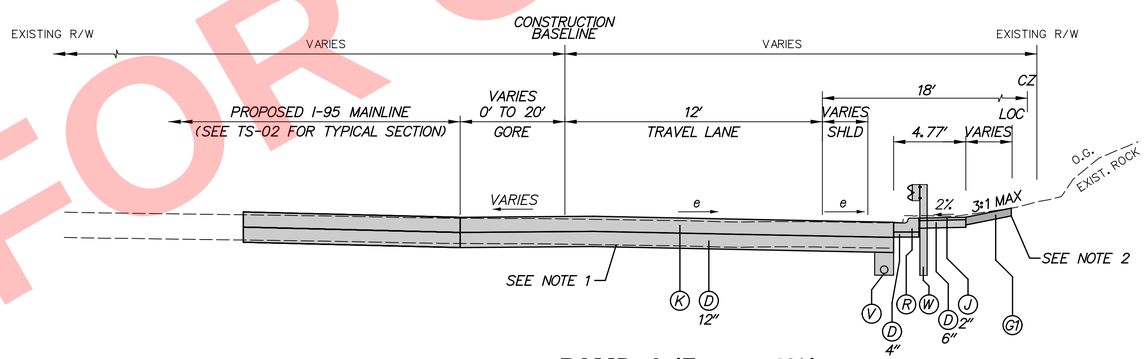
RAMP J (Emax=4%)

STATION 905+22 TO STATION 906+15



RAMP J (Emax=4%)

STATION 904+21 TO STATION 905+22



RAMP J (Emax=4%)

STATION 901+82 TO STATION 904+21

LEGEND

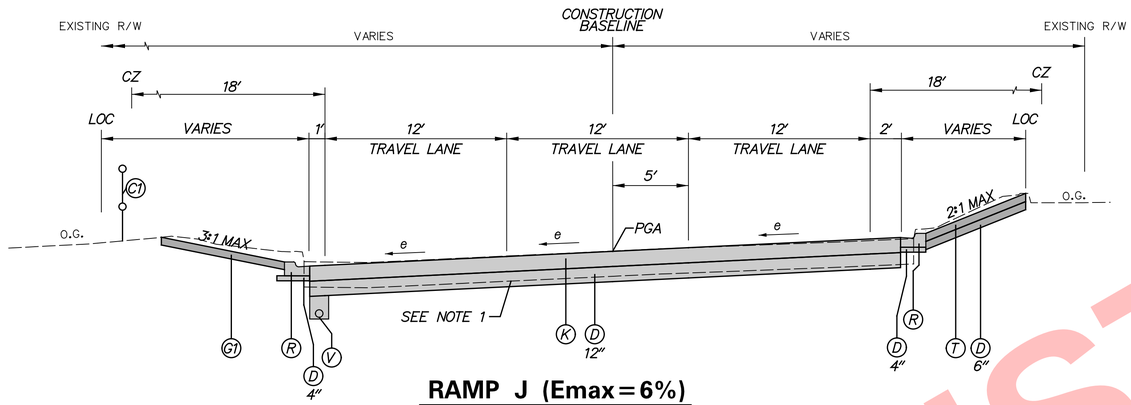
- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:

1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10" REINFORCED PCC PAVEMENT
   4" SELECT BORROW CEMENT TREATED SUBBASE
   4" SELECT BORROW
2. WHEN ROCK IS PRESENT BEHIND PROPOSED GUARDRAIL OR CONCRETE BARRIER, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER TO DETERMINE THE GRADING OF FINISHED GROUND BETWEEN THE BACK EDGE OF MAINTENANCE PAVEMENT OR CONCRETE BARRIER FOOTER AND THE ROCK FACE. THE SLOPE SHALL NOT BE LESS THAN 4% AND NOT MORE THAN 2:1 SLOPED TOWARDS THE ROADWAY. ROCK SHALL NOT BE EXCAVATED BEHIND THE MAINTENANCE PAVEMENT OR CONCRETE BARRIER WITHOUT APPROVAL BY THE ENGINEER AND ANY ROCK REMOVED WITHOUT APPROVAL WILL BE PAID FOR UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT. THE FINISHED GROUND SURFACE IN THESE AREAS SHALL EITHER BE 6" TOPSOIL, SEED, AND EROSION CONTROL BLANKET (IF REQUIRED), OR EXPOSED ROCK FACE.
3. UNDER THE 6TH STREET BRIDGE (STA 904+22 TO 904+70), EXTEND MAINTENANCE PAVEMENT BEHIND GUARDRAIL TO ROCK FACE, SLOPED AT 2% TOWARDS THE CURB.

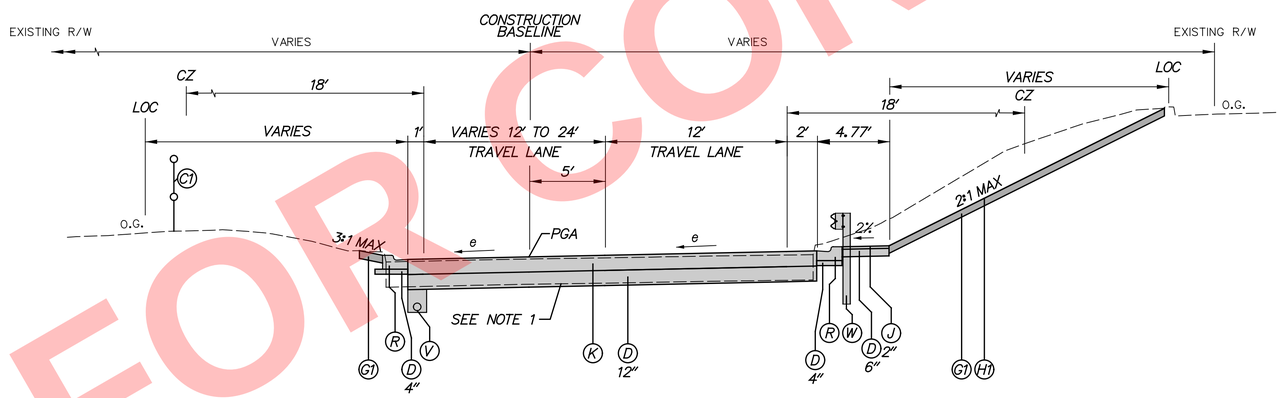
NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-09
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-16
					CHECKED BY: PAH		TOTAL SHTS. 1-178



RAMP J (Emax=6%)

STATION 907+81 TO STATION 910+20



RAMP J (Emax=4%)

STATION 906+15 TO STATION 907+81

LEGEND

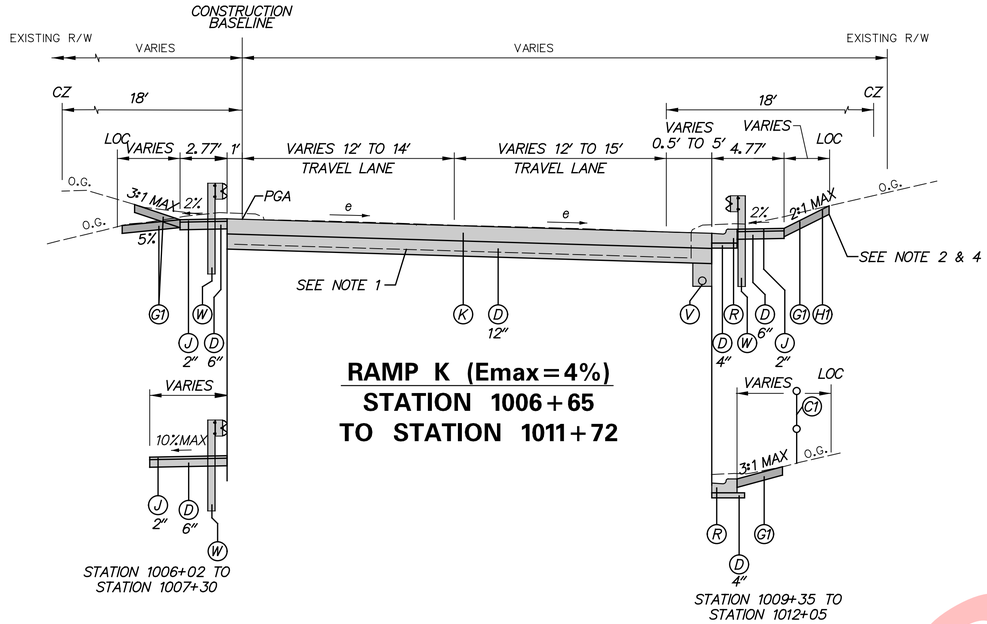
- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:

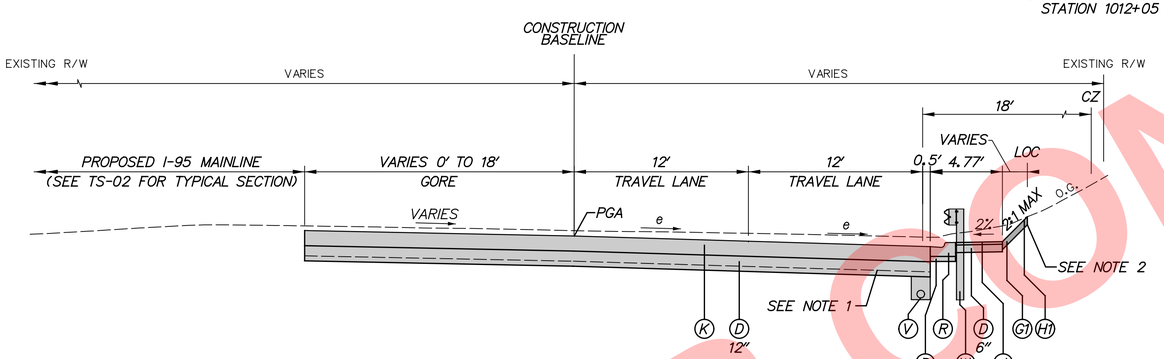
1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10" REINFORCED PCC PAVEMENT
   4" SELECT BORROW CEMENT TREATED SUBBASE
   4" SELECT BORROW

NOT FOR CONSTRUCTION

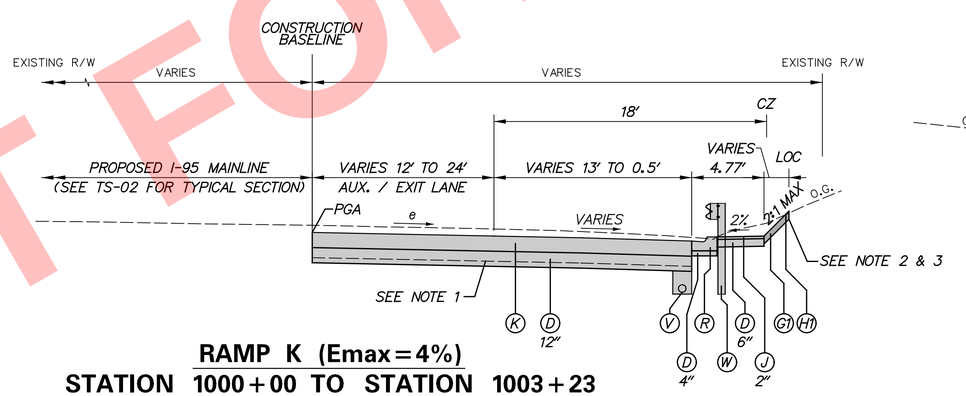
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-10
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-17
					CHECKED BY: PAH		TOTAL SHTS. 1-178



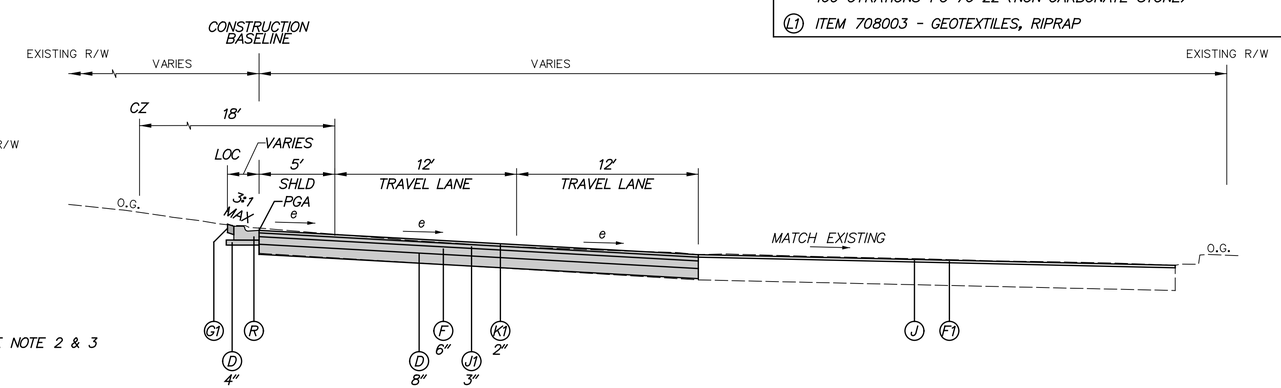
RAMP K (Emax=4%)
STATION 1006+65
TO STATION 1011+72



RAMP K (Emax=4%)
STATION 1003+23 TO STATION 1006+65



RAMP K (Emax=4%)
STATION 1000+00 TO STATION 1003+23



RAMP K (Emax=4%)
STATION 1011+72 TO STATION 1012+22

NOTES:

1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10" REINFORCED PCC PAVEMENT
   4" SELECT BORROW CEMENT TREATED SUBBASE
   4" SELECT BORROW
2. WHEN ROCK IS PRESENT BEHIND PROPOSED GUARDRAIL OR CONCRETE BARRIER, THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER TO DETERMINE THE GRADING OF FINISHED GROUND BETWEEN THE BACK EDGE OF MAINTENANCE PAVEMENT OR CONCRETE BARRIER FOOTER AND THE ROCK FACE. THE SLOPE SHALL NOT BE LESS THAN 4% AND NOT MORE THAN 2:1 SLOPED TOWARDS THE ROADWAY. ROCK SHALL NOT BE EXCAVATED BEHIND THE MAINTENANCE PAVEMENT OR CONCRETE BARRIER WITHOUT APPROVAL BY THE ENGINEER AND ANY ROCK REMOVED WITHOUT APPROVAL WILL BE PAID FOR UNDER ITEM 202000 - EXCAVATION AND EMBANKMENT. THE FINISHED GROUND SURFACE IN THESE AREAS SHALL EITHER BE 6" TOPSOIL, SEED, AND EROSION CONTROL BLANKET (IF REQUIRED), OR EXPOSED ROCK FACE.
3. UNDER THE 6TH STREET BRIDGE (STA 1000+52 TO 1000+99), EXTEND MAINTENANCE PAVEMENT BEHIND GUARDRAIL TO ROCK FACE, SLOPED AT 2% TOWARDS THE CURB.
4. UNDER THE 8TH STREET BRIDGE (STA 1006+74 TO 1007+21), EXTEND MAINTENANCE PAVEMENT BEHIND GUARDRAIL TO ROCK FACE, SLOPED AT 2% TOWARDS THE CURB.

LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404 / COUNTY NEW CASTLE	BRIDGE NO. / DESIGNED BY: DHW / CHECKED BY: PAH	TYPICAL SECTIONS

TS-11

SHEET NO. 1-18

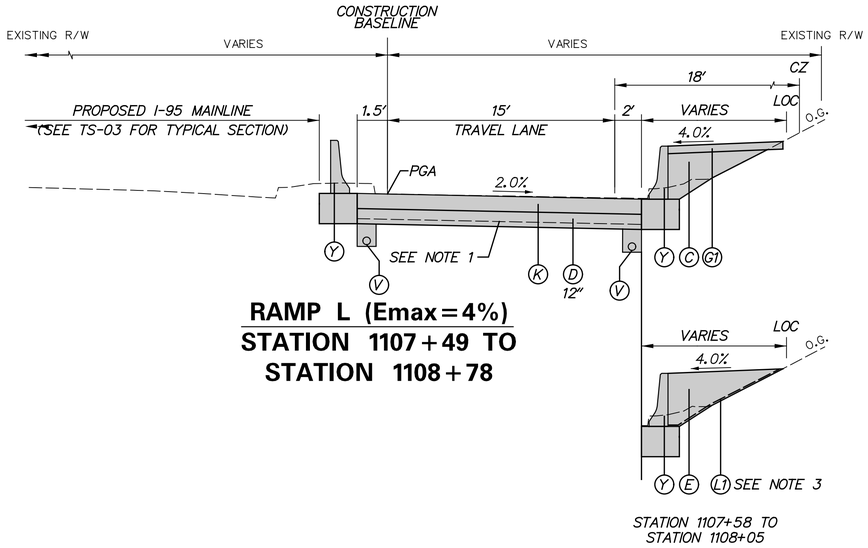
TOTAL SHTS. 1-178

NOTES:

1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10" REINFORCED PCC PAVEMENT
   4" SELECT BORROW CEMENT TREATED SUBBASE
   4" SELECT BORROW
2. NO. 57 STONE INCIDENTAL TO ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42". SEE BARRIER DETAILS.
3. UNDER THE 10TH STREET BRIDGE, BETWEEN PIER AND ABUTMENT, PLACE R-4 RIPRAP. R-4 RIPRAP TO BE SEPARATED FROM SOIL WITH ITEM 708003 - GEOTEXTILES, RIPRAP.

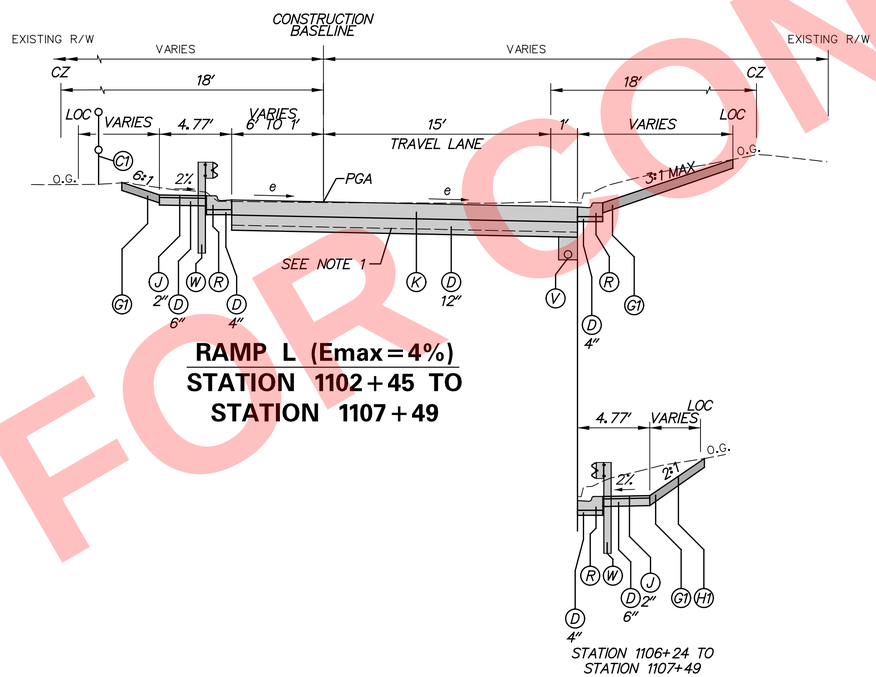
LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP



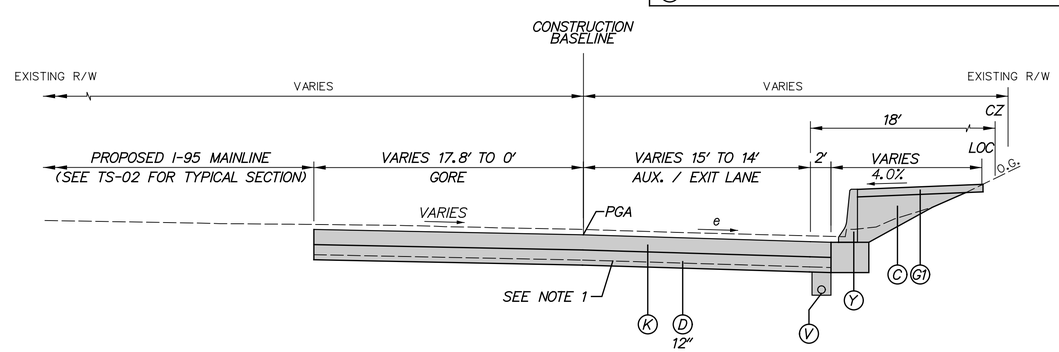
RAMP L (Emax=4%)
STATION 1107+49 TO
STATION 1108+78

STATION 1107+58 TO
STATION 1108+05



RAMP L (Emax=4%)
STATION 1102+45 TO
STATION 1107+49

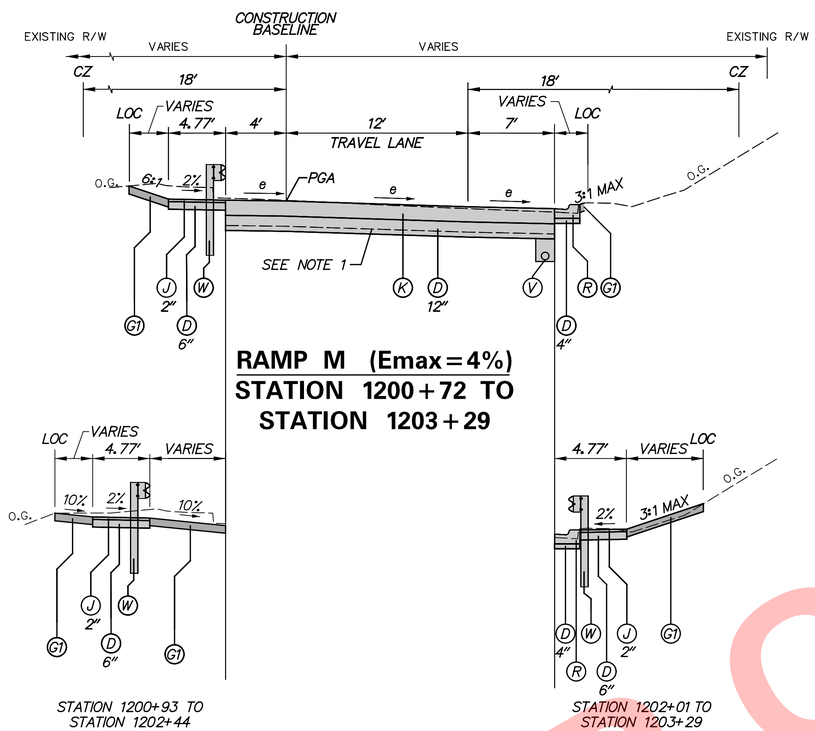
STATION 1106+24 TO
STATION 1107+49



RAMP L (Emax=4%)
STATION 1108+78 TO STATION 1110+82

NOT FOR CONSTRUCTION

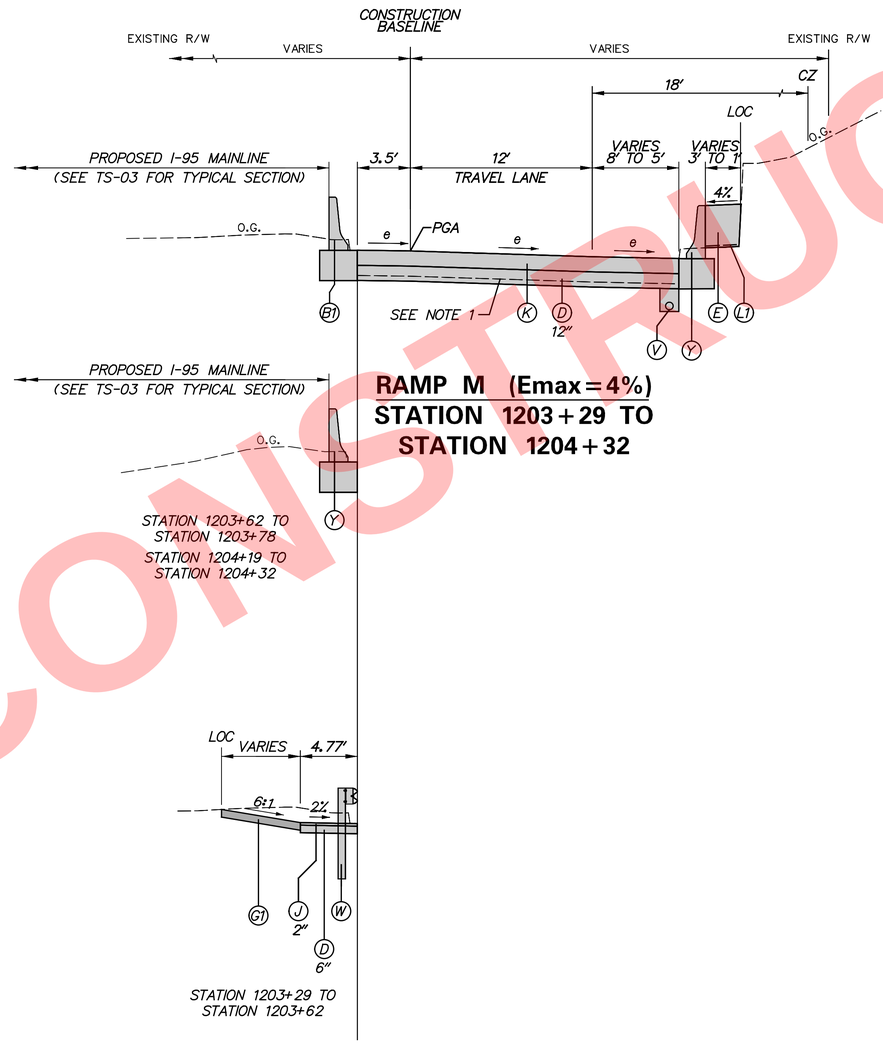
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-12
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-19
					CHECKED BY: PAH		TOTAL SHTS. 1-178



RAMP M (Emax = 4%)
STATION 1200 + 72 TO
STATION 1203 + 29

STATION 1200+93 TO
STATION 1202+44

STATION 1202+01 TO
STATION 1203+29



RAMP M (Emax = 4%)
STATION 1203 + 29 TO
STATION 1204 + 32

STATION 1203+29 TO
STATION 1203+62

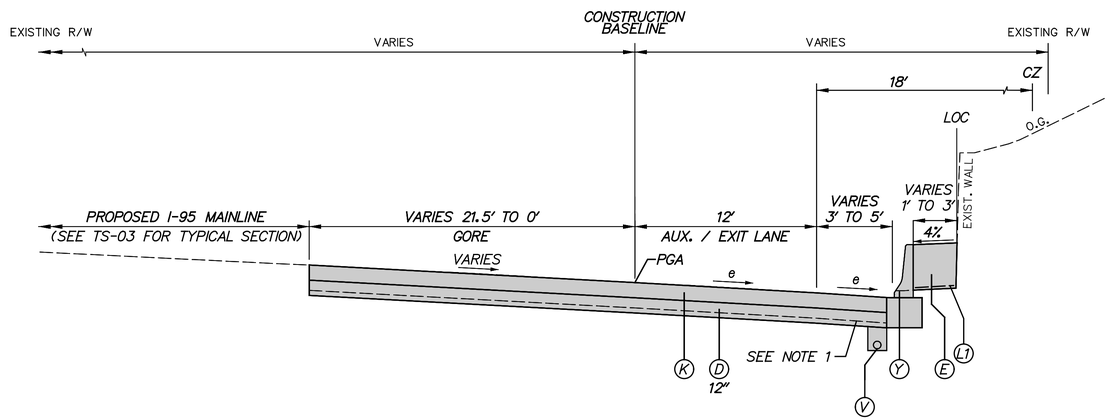
LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:
1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10" REINFORCED PCC PAVEMENT
   4" SELECT BORROW CEMENT TREATED SUBBASE
   4" SELECT BORROW
2. NO. 57 STONE INCIDENTAL TO ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42". SEE BARRIER DETAILS.

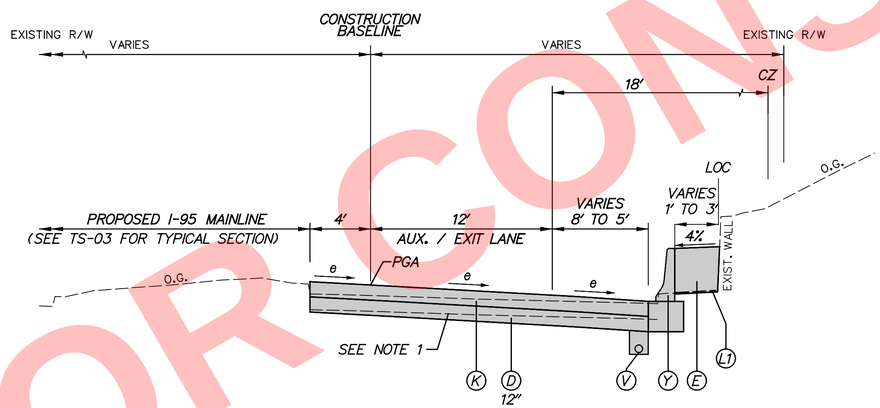
NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-13
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-20
					CHECKED BY: PAH		TOTAL SHTS. 1-178



RAMP M (Emax = 4%)

STATION 1205 + 39 TO STATION 1208 + 12



RAMP M (Emax = 4%)

STATION 1204 + 32 TO STATION 1205 + 39

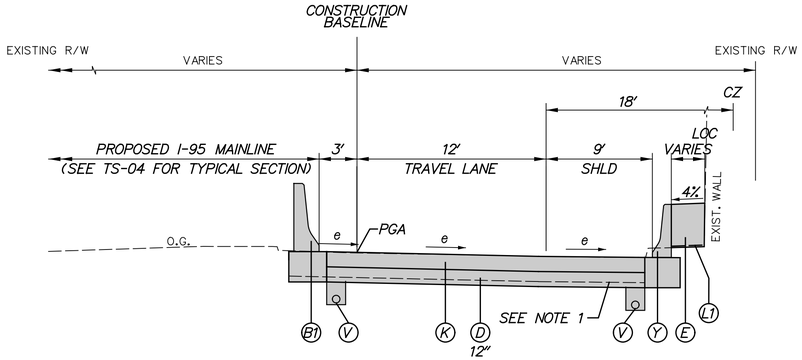
LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

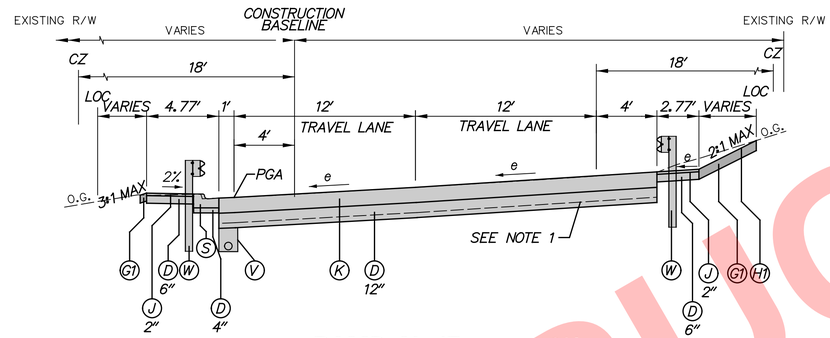
NOTES:

1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10" REINFORCED PCC PAVEMENT
   4" SELECT BORROW CEMENT TREATED SUBBASE
   4" SELECT BORROW
2. NO. 57 STONE INCIDENTAL TO ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42". SEE BARRIER DETAILS.

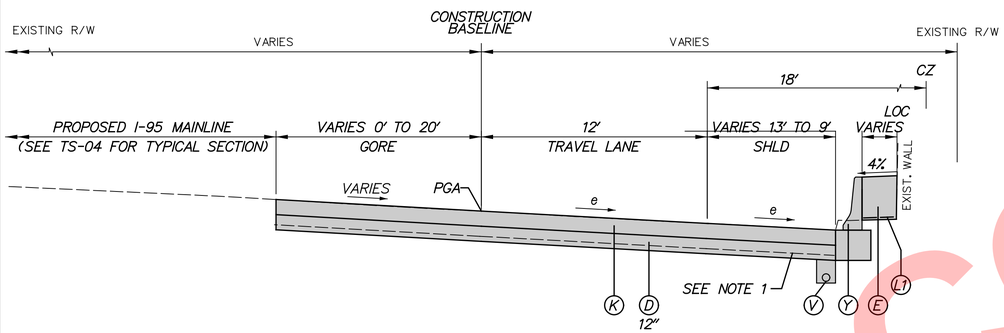
NOT FOR CONSTRUCTION



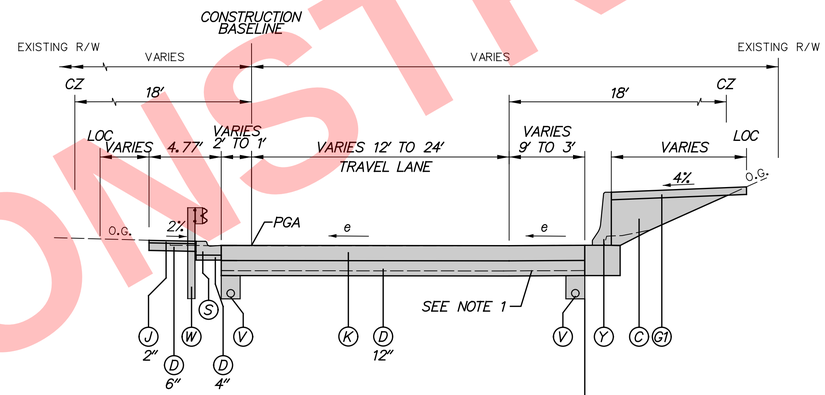
RAMP N (Emax=4%)
STATION 1303+39 TO STATION 1304+71



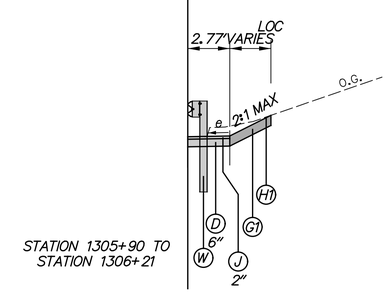
RAMP N (Emax=4%)
STATION 1306+21 TO STATION 1308+15



RAMP N (Emax=4%)
STATION 1300+00 TO STATION 1303+39



RAMP N (Emax=4%)
STATION 1304+71 TO STATION 1306+21



STATION 1305+90 TO
STATION 1306+21

LEGEND

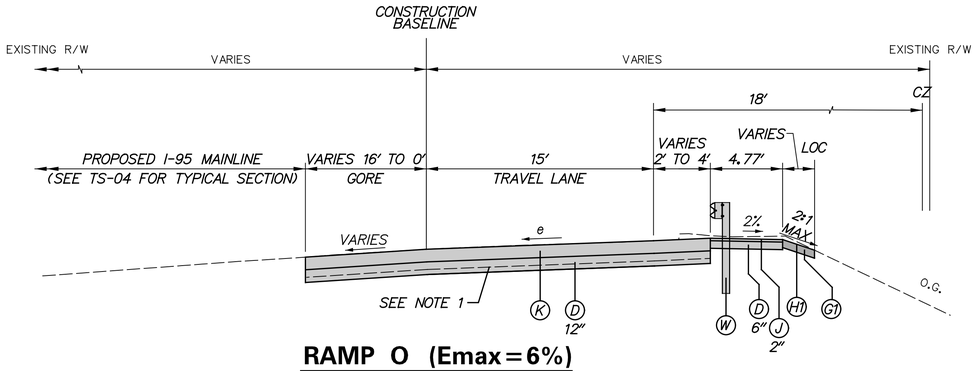
- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:
1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10" REINFORCED PCC PAVEMENT
   4" SELECT BORROW CEMENT TREATED SUBBASE
   4" SELECT BORROW

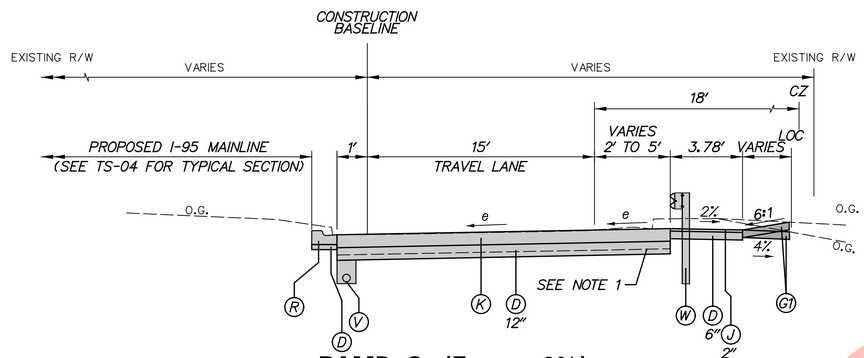
NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404 / COUNTY NEW CASTLE	BRIDGE NO. / DESIGNED BY: DHW / CHECKED BY: PAH	TYPICAL SECTIONS

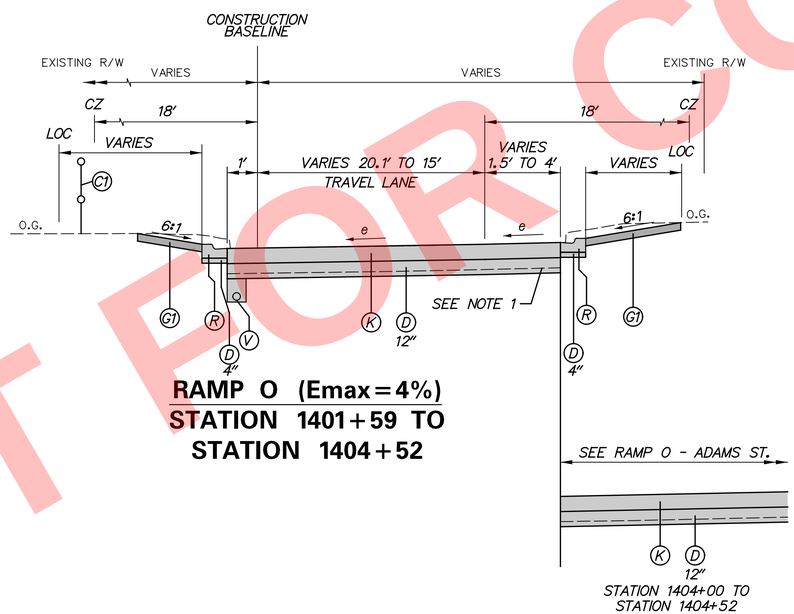
TS-15
SHEET NO. 1-22
TOTAL SHTS. 1-178



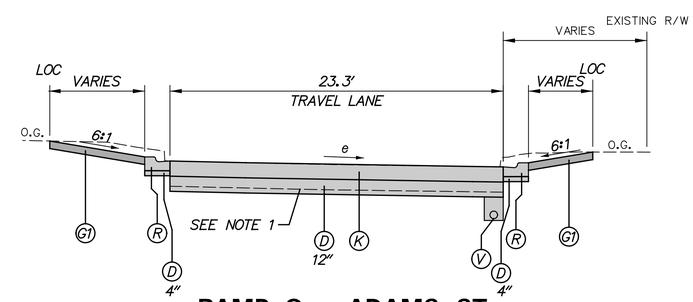
RAMP O (Emax=6%)
STATION 1407+02 TO STATION 1408+95



RAMP O (Emax=6%)
STATION 1404+52 TO STATION 1407+02



RAMP O (Emax=4%)
STATION 1401+59 TO
STATION 1404+52



RAMP O – ADAMS ST.

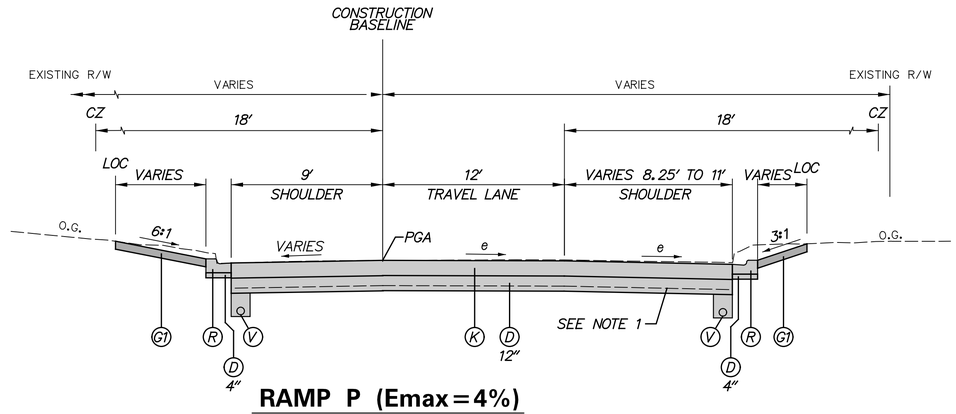
LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:
1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10" REINFORCED PCC PAVEMENT
   4" SELECT BORROW CEMENT TREATED SUBBASE
   4" SELECT BORROW

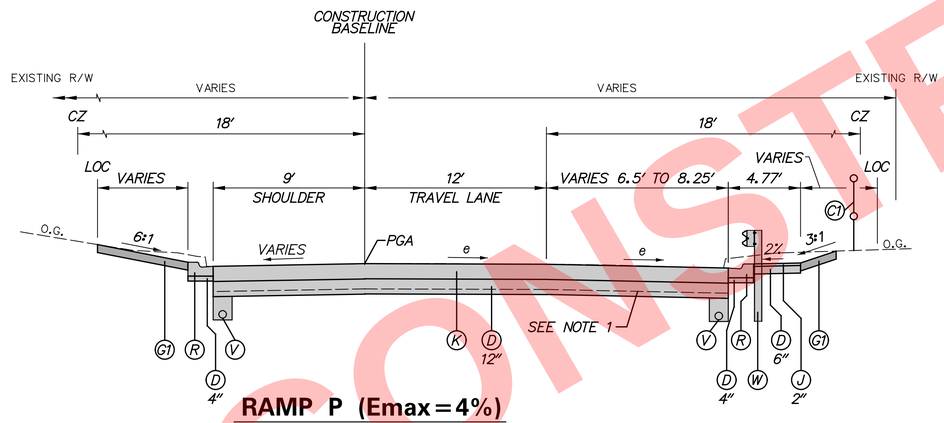
NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-16
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-23
					CHECKED BY: PAH		TOTAL SHTS. 1-178



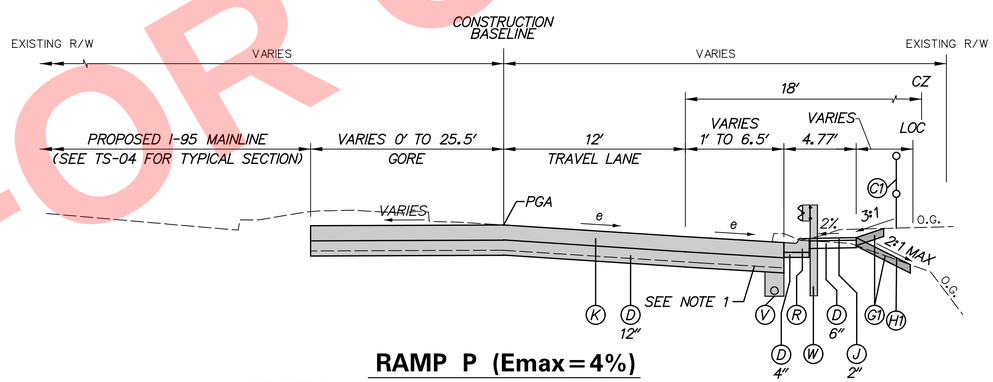
RAMP P (Emax=4%)

STATION 1504+00 TO STATION 1506+46



RAMP P (Emax=4%)

STATION 1503+15 TO STATION 1504+00



RAMP P (Emax=4%)

STATION 1500+00 TO STATION 1503+15

LEGEND

- (A) ITEM 208000 - FLOWABLE FILL, 10.5"
- (B) ITEM 209001 - BORROW, TYPE A (IF REQUIRED)
- (C) ITEM 209006 - BORROW, TYPE F
- (D) ITEM 301001 - GRADED AGGREGATE BASE COURSE, TYPE B
- (E) ITEM 302005 - DELAWARE NO. 57 STONE
- (F) ITEM 401011 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 64-22
- (G) ITEM 401012 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS, PG 70-22
- (H) ITEM 401020 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22 (4" LIFTS MAX.)
- (J) ITEM 401042 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS, PG 70-22 (NON-CARBONATE STONE)
- (K) ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"
- (L) ITEM 601XXX - SLOTTED DRAIN GALVANIZED CORRUGATED STEEL PIPE, 18", 16 GAGE, 2 2/3" X 1/2" CORRUGATION
- (M) ITEM 701015 - I.P.C.C. CURB AND GUTTER, TYPE 1-2
- (N) ITEM 701016 - I.P.C.C. CURB AND GUTTER, TYPE 1-4
- (P) ITEM 701018 - I.P.C.C. CURB AND GUTTER, TYPE 1-8
- (Q) ITEM 701020 - I.P.C.C. CURB AND GUTTER, TYPE 3-2
- (R) ITEM 701021 - I.P.C.C. CURB AND GUTTER, TYPE 3-4
- (S) ITEM 701022 - I.P.C.C CURB AND GUTTER, TYPE 3-6
- (T) ITEM 705002 - PCC SIDEWALK, 6"
- (U) ITEM 707015 - RIPRAP, R-4
- (V) ITEM 709001 - PERFORATED PIPE UNDERDRAINS, 6"
- (W) ITEM 720021 OR 720022 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31 OR TYPE 2-31
- (X) ITEM 720023 - GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31
- (Y) ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42"
- (Z) ITEM 723004 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, 42"
- (A1) ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED
- (B1) ITEM 723XXX - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"
- (C1) ITEM 727000 - CHAIN LINK FENCE
- (D1) ITEM 760006 - RUMBLE STRIPS, BITUMINOUS PAVEMENT
- (E1) ITEM 760007 - RUMBLE STRIPS, CONCRETE
- (F1) ITEM 760010 - PAVEMENT MILLING, BITUMINOUS CONCRETE PAVEMENT
- (G1) ITEM 908004 - TOPSOIL, 6" DEPTH
  ITEM 908014 - PERMANENT GRASS SEEDING, DRY GROUND
- (H1) ITEM 908020 - EROSION CONTROL BLANKET
- (J1) ITEM 401013 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 76-22
- (K1) ITEM 401043 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 76-22 (NON-CARBONATE STONE)
- (L1) ITEM 708003 - GEOTEXTILES, RIPRAP

NOTES:

1. EXISTING RAMP PAVEMENT SECTION (ROADWAY):
   10" REINFORCED PCC PAVEMENT
   4" SELECT BORROW CEMENT TREATED SUBBASE
   4" SELECT BORROW

NOT FOR CONSTRUCTION

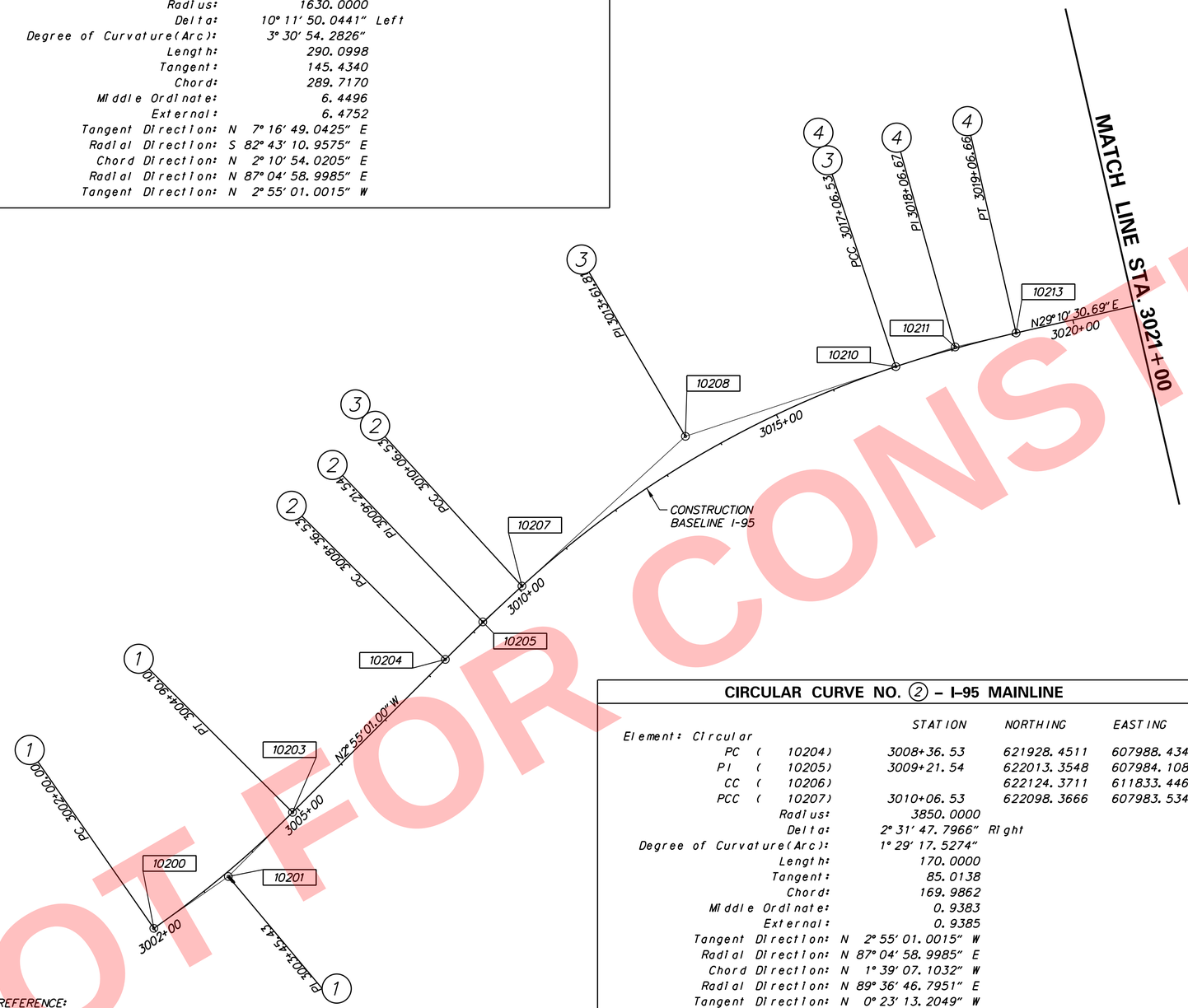
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	TYPICAL SECTIONS	TS-17
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-24
					CHECKED BY: PAH		TOTAL SHTS. 1-178

CIRCULAR CURVE NO. 1 – I-95 MAINLINE

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10200)	3002+00.00	621292.9640	607995.0347
PI	(10201)	3003+45.43	621437.2255	608013.4645
CC	(10202)		621499.5231	606378.1756
PT	(10203)	3004+90.10	621582.4710	608006.0637
Radius:		1630.0000		
Delta:		10° 11′ 50.0441″ Left		
Degree of Curvature(Arc):		3° 30′ 54.2826″		
Length:		290.0998		
Tangent:		145.4340		
Chord:		289.7170		
Middle Ordinate:		6.4496		
External:		6.4752		
Tangent Direction:		N 7° 16′ 49.0425″ E		
Radial Direction:		S 82° 43′ 10.9575″ E		
Chord Direction:		N 2° 10′ 54.0205″ E		
Radial Direction:		N 87° 04′ 58.9985″ E		
Tangent Direction:		N 2° 55′ 01.0015″ W		

CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
13000	3020+00.00	0.00	623039.3474	608259.0446



CIRCULAR CURVE NO. 3 – I-95 MAINLINE

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10207)	3010+06.53	622098.3666	607983.5340
PI	(10208)	3013+61.81	622453.6389	607981.1343
CC	(10209)		622109.5789	609643.4962
PCC	(10210)	3017+06.53	622778.7714	608124.3578
Radius:		1660.0000		
Delta:		24° 09′ 39.1352″ Right		
Degree of Curvature(Arc):		3° 27′ 05.5907″		
Length:		700.0000		
Tangent:		355.2803		
Chord:		694.8251		
Middle Ordinate:		36.7611		
External:		37.5936		
Tangent Direction:		N 0° 23′ 13.2049″ W		
Radial Direction:		N 89° 36′ 46.7951″ E		
Chord Direction:		N 11° 41′ 36.3627″ E		
Radial Direction:		S 66° 13′ 34.0697″ E		
Tangent Direction:		N 23° 46′ 25.9303″ E		

CIRCULAR CURVE NO. 4 – I-95 MAINLINE

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10210)	3017+06.53	622778.7714	608124.3578
PI	(10211)	3018+06.67	622870.4155	608164.7277
CC	(10212)		621922.9381	610067.1909
PT	(10213)	3019+06.66	622957.8527	608213.5450
Radius:		2122.9816		
Delta:		5° 24′ 04.7566″ Right		
Degree of Curvature(Arc):		2° 41′ 55.8074″		
Length:		200.1353		
Tangent:		100.1418		
Chord:		200.0612		
Middle Ordinate:		2.3579		
External:		2.3606		
Tangent Direction:		N 23° 46′ 25.9303″ E		
Radial Direction:		S 66° 13′ 34.0697″ E		
Chord Direction:		N 26° 28′ 28.3086″ E		
Radial Direction:		S 60° 49′ 29.3131″ E		
Tangent Direction:		N 29° 10′ 30.6869″ E		

CIRCULAR CURVE NO. 2 – I-95 MAINLINE

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10204)	3008+36.53	621928.4511	607988.4345
PI	(10205)	3009+21.54	622013.3548	607984.1083
CC	(10206)		622124.3711	611833.4462
PCC	(10207)	3010+06.53	622098.3666	607983.5340
Radius:		3850.0000		
Delta:		2° 31′ 47.7966″ Right		
Degree of Curvature(Arc):		1° 29′ 17.5274″		
Length:		170.0000		
Tangent:		85.0138		
Chord:		169.9862		
Middle Ordinate:		0.9383		
External:		0.9385		
Tangent Direction:		N 2° 55′ 01.0015″ W		
Radial Direction:		N 87° 04′ 58.9985″ E		
Chord Direction:		N 1° 39′ 07.1032″ W		
Radial Direction:		N 89° 36′ 46.7951″ E		
Tangent Direction:		N 0° 23′ 13.2049″ W		

HV CONTROL LEGEND:

CMONU - SURVEY MONUMENT FOUND

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 100 200 300 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: KRK
COUNTY	
NEW CASTLE	CHECKED BY: BRT

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-01

SECTION	SHEET NO.
WRA	26

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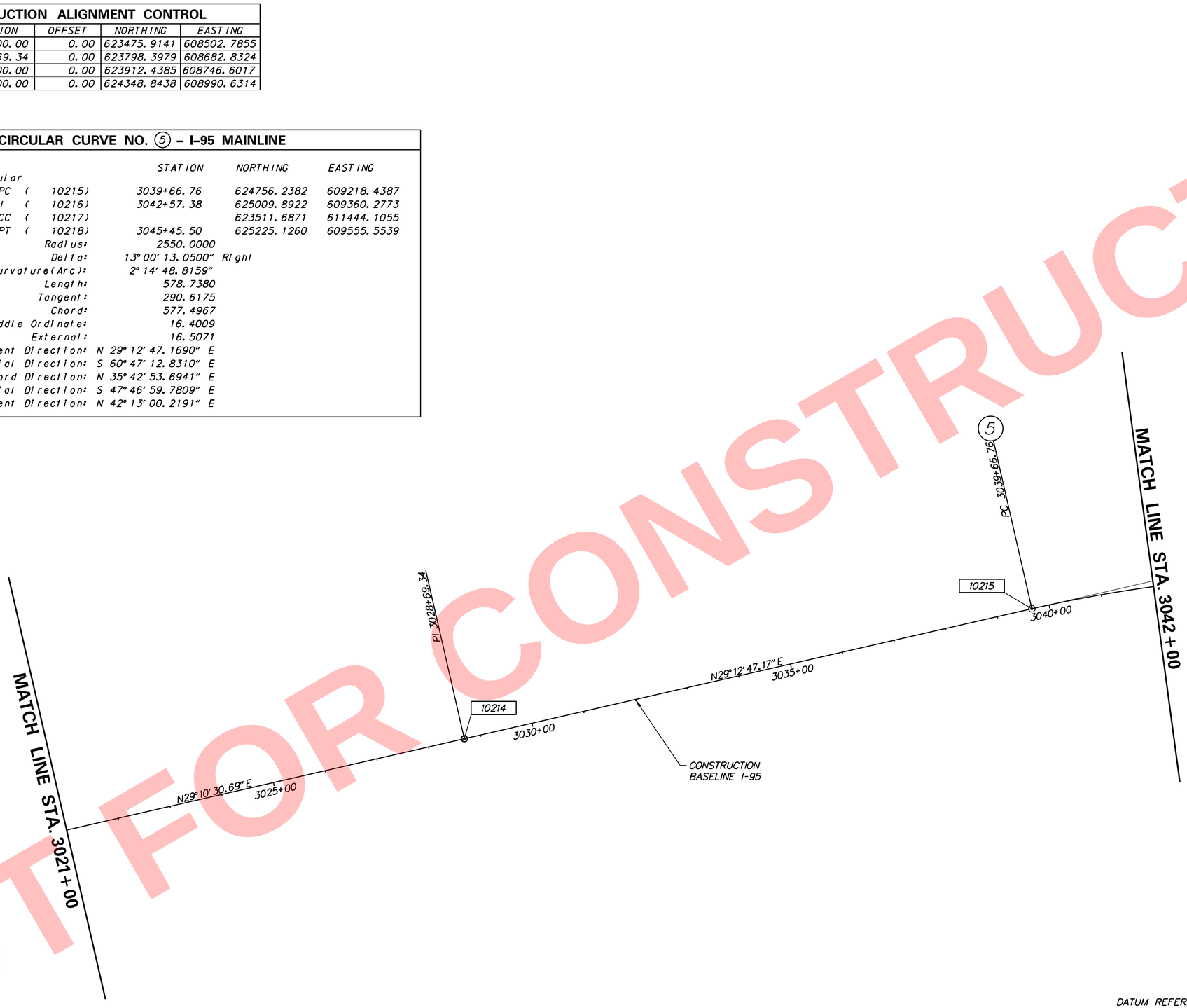
CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
13001	3025+00.00	0.00	623475.9141	608502.7855
10214	3028+69.34	0.00	623798.3979	608682.8324
13002	3030+00.00	0.00	623912.4385	608746.6017
13003	3035+00.00	0.00	624348.8438	608990.6314

CIRCULAR CURVE NO. 5 – I-95 MAINLINE

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10215)	3039+66.76	624756.2382	609218.4387
PI	(10216)	3042+57.38	625009.8922	609360.2773
CC	(10217)		623511.6871	611444.1055
PT	(10218)	3045+45.50	625225.1260	609555.5539
Radius:		2550.0000		
Delta:		13° 00′ 13.0500″ Right		
Degree of Curvature(Arc):		2° 14′ 48.8159″		
Length:		578.7380		
Tangent:		290.6175		
Chord:		577.4967		
Middle Ordinate:		16.4009		
External:		16.5071		
Tangent Direction:		N 29° 12′ 47.1690″ E		
Radial Direction:		S 60° 47′ 12.8310″ E		
Chord Direction:		N 35° 42′ 53.6941″ E		
Radial Direction:		S 47° 46′ 59.7809″ E		
Tangent Direction:		N 42° 13′ 00.2191″ E		



DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

SCALE
0 100 200 300
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: KRK
COUNTY	
NEW CASTLE	CHECKED BY: BRT

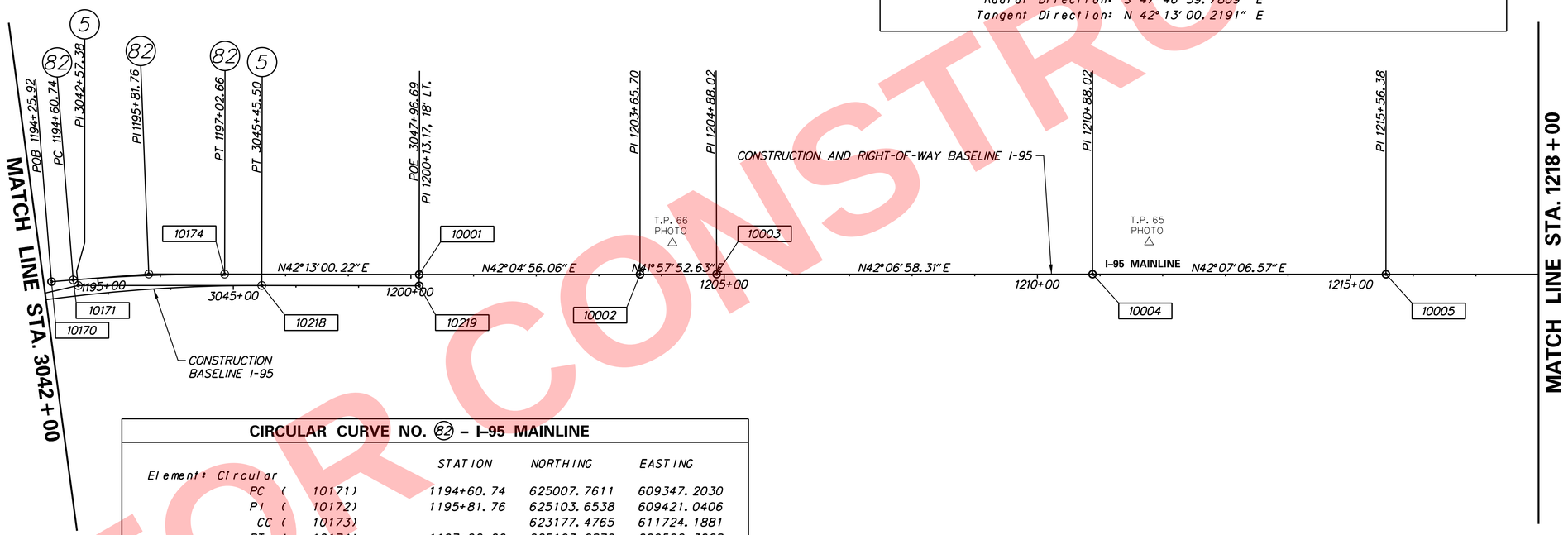
HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-02
SECTION
WRA
SHEET NO.
27

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
10001	1200+13.17	0.00	625423.2556	609711.0079
10002	1203+65.70	0.00	625684.8954	609947.2703
10003	1204+88.02	0.00	625775.8480	610029.0628
10004	1210+88.02	0.00	626220.9198	610431.4446
10005	1215+56.38	0.00	626568.3341	610745.5612
10170	1194+25.92	0.00	624980.1766	609325.9629
10171	1194+60.74	0.00	625007.7611	609347.2030
10174	1197+02.66	0.00	625193.2870	609502.3628
10218	3045+45.50	0.00	625225.1260	609555.5539
10219	3047+96.69	0.00	625411.1608	609724.3389

CIRCULAR CURVE NO. 5 – I-95 MAINLINE

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10215)	3039+66.76	624756.2382	609218.4387
PI	(10216)	3042+57.38	625009.8922	609360.2773
CC	(10217)		623511.6871	611444.1055
PT	(10218)	3045+45.50	625225.1260	609555.5539
Radius:		2550.0000		
Delta:		13° 00′ 13.0500″ Right		
Degree of Curvature(Arc):		2° 14′ 48.8159″		
Length:		578.7380		
Tangent:		290.6175		
Chord:		577.4967		
Middle Ordinate:		16.4009		
External:		16.5071		
Tangent Direction:		N 29° 12′ 47.1690″ E		
Radial Direction:		S 60° 47′ 12.8310″ E		
Chord Direction:		N 35° 42′ 53.6941″ E		
Radial Direction:		S 47° 46′ 59.7809″ E		
Tangent Direction:		N 42° 13′ 00.2191″ E		



CIRCULAR CURVE NO. 82 – I-95 MAINLINE

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10171)	1194+60.74	625007.7611	609347.2030
PI	(10172)	1195+81.76	625103.6538	609421.0406
CC	(10173)		623177.4765	611724.1881
PT	(10174)	1197+02.66	625193.2870	609502.3628
Radius:		3000.0000		
Delta:		4° 37′ 13.3082″ Right		
Degree of Curvature(Arc):		1° 54′ 35.4935″		
Length:		241.9217		
Tangent:		121.0264		
Chord:		241.8561		
Middle Ordinate:		2.4383		
External:		2.4402		
Tangent Direction:		N 37° 35′ 46.9109″ E		
Radial Direction:		S 52° 24′ 13.0891″ E		
Chord Direction:		N 39° 54′ 23.5650″ E		
Radial Direction:		S 47° 46′ 59.7809″ E		
Tangent Direction:		N 42° 13′ 00.2191″ E		

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
65	1211+78.21	-51.01	626322.0284	610454.0959	37.85
66	1204+17.49	-49.87	625756.7526	609944.8224	26.28

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE
0 100 200 300
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: KRK	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-03
SECTION
WRA
SHEET NO.
28

NOT FOR CONSTRUCTION

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
13005	1220+00.00	0.00	626897.3712	611043.1008
13006	1225+00.00	0.00	627268.2291	611378.4579
10008	1229+56.38	0.00	627606.7363	611684.5611
13007	1230+00.00	0.00	627639.0975	611713.8035
13008	1235+00.00	0.00	628010.0746	612049.0287
13009	1240+00.00	0.00	628381.0518	612384.2539
13010	1245+00.00	0.00	628752.0346	612719.4843

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

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ADDENDA / REVISIONS

SCALE
0 100 200 300
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: KRK	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-04
SECTION
WRA
SHEET NO.
29

CLOTHOID CURVE NO. 6 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothold			
TS (10014)	1257+31.98	629666.2493	613545.3005
SPI (10015)	1258+92.01	629785.1493	613652.4134
SC (10016)	1259+71.98	629847.8226	613702.1806
Entrance Radius:	0.00		
Exit Radius:	1930.00		
Length:	240.00		
Angle:	3° 33′ 44.7548″ Left		
Constant:	680.59		
Long Tangent:	160.03		
Short Tangent:	80.03		
Long Chord:	239.96		
Xs:	239.91		
Ys:	4.97		
P:	1.24		
K:	119.98		
Tangent Direction:	N 42° 00′ 52.5035″ E		
Radial Direction:	S 47° 59′ 07.4965″ E		
Chord Direction:	N 40° 49′ 37.7282″ E		
Radial Direction:	S 51° 32′ 52.2513″ E		
Tangent Direction:	N 38° 27′ 07.7487″ E		

HORIZONTAL / VERTICAL CONTROL DATA

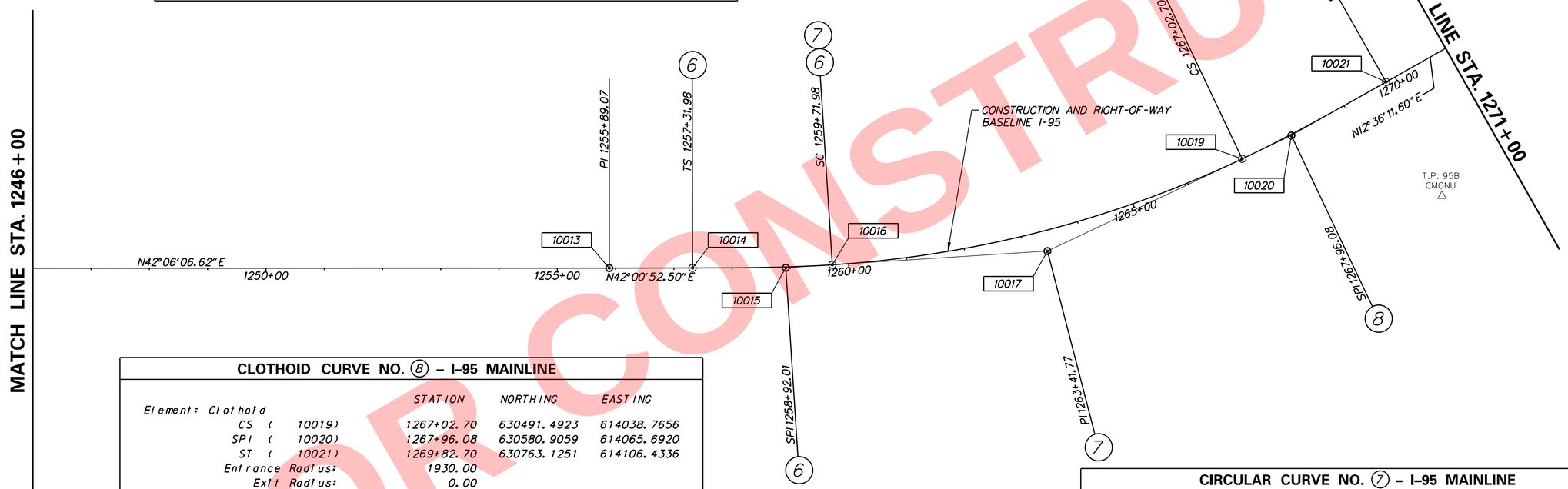
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
95B	1269+69.63	217.51	630702.8364	614315.8317	7.34

HV CONTROL LEGEND:

CMONU - SURVEY MONUMENT FOUND

CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
13012	1250+00.00	0.00	629493.9833	613389.9296
10013	1255+89.07	0.00	629560.0717	613449.6489



CLOTHOID CURVE NO. 8 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothold			
CS (10019)	1267+02.70	630491.4923	614038.7656
SPI (10020)	1267+96.08	630580.9059	614065.6920
ST (10021)	1269+82.70	630763.1251	614106.4336
Entrance Radius:	1930.00		
Exit Radius:	0.00		
Length:	280.00		
Angle:	4° 09′ 22.2139″ Left		
Constant:	735.12		
Long Tangent:	186.72		
Short Tangent:	93.38		
Long Chord:	279.93		
Xs:	279.85		
Ys:	6.77		
P:	1.69		
K:	139.98		
Tangent Direction:	N 16° 45′ 33.8141″ E		
Radial Direction:	S 73° 14′ 26.1859″ E		
Chord Direction:	N 13° 59′ 18.7778″ E		
Radial Direction:	S 77° 23′ 48.3998″ E		
Tangent Direction:	N 12° 36′ 11.6002″ E		

CIRCULAR CURVE NO. 7 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Circular			
SC (10016)	1259+71.98	629847.8226	613702.1806
PI (10017)	1263+41.77	630137.4127	613932.1364
CC (10018)		631048.0140	612190.7440
CS (10019)	1267+02.70	630491.4923	614038.7656
Radius:	1930.00		
Delta:	21° 41′ 33.9346″ Left		
Degree of Curvature(Arc):	2° 58′ 07.2957″		
Length:	730.72		
Tangent:	369.79		
Chord:	726.36		
Middle Ordinate:	34.48		
External:	35.11		
Tangent Direction:	N 38° 27′ 07.7487″ E		
Radial Direction:	S 51° 32′ 52.2513″ E		
Chord Direction:	N 27° 36′ 20.7814″ E		
Radial Direction:	S 73° 14′ 26.1859″ E		
Tangent Direction:	N 16° 45′ 33.8141″ E		

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

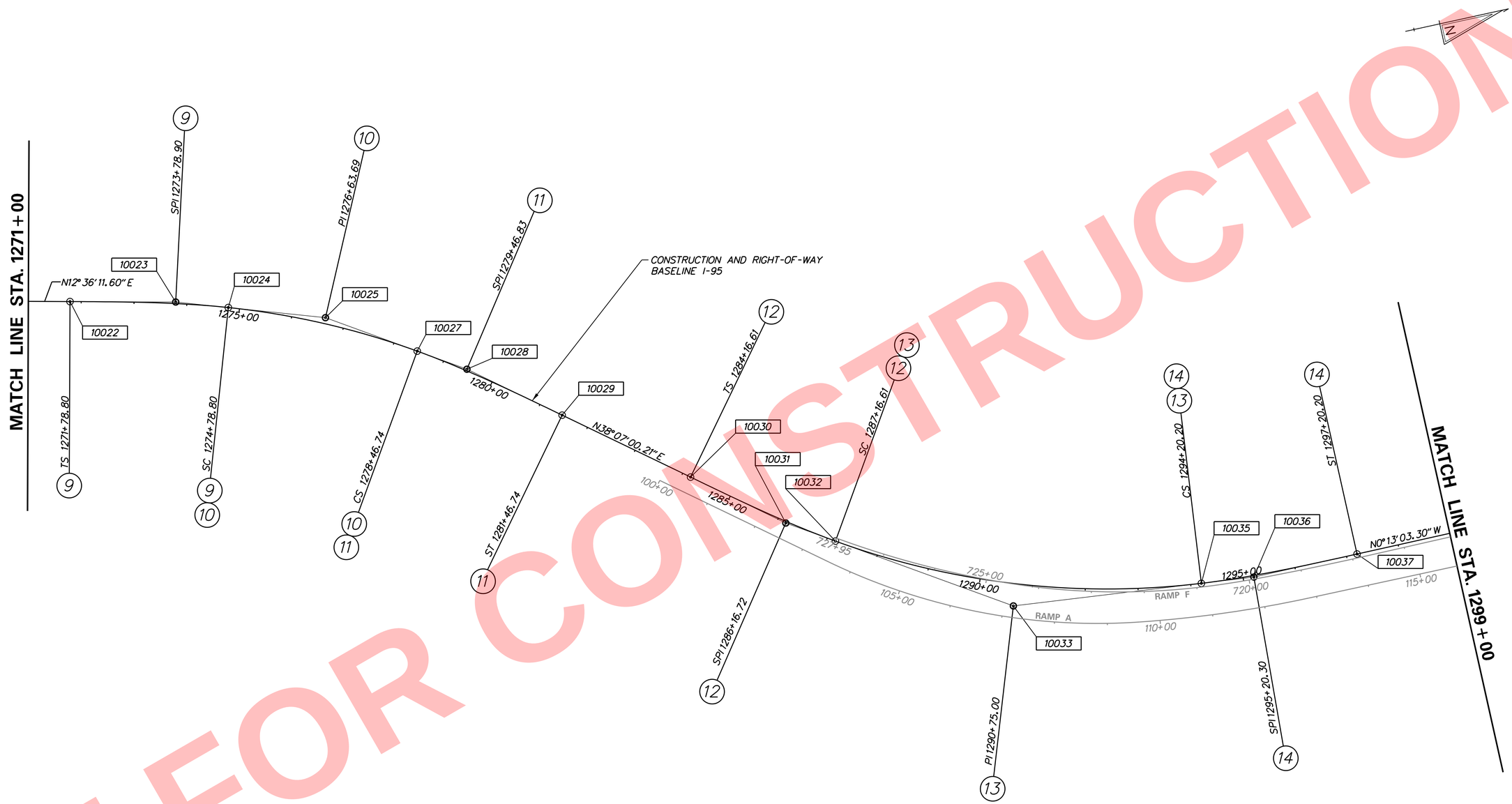
SCALE 0 100 200 300 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: KRK	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-05
SECTION
WRA
SHEET NO.
30



NOT FOR CONSTRUCTION

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOTES:
1. SEE SHEET HV-16 FOR CURVE DATA CHARTS.
2. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE RAMP A, SEE SHEET HV-13.
3. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE RAMP F, SEE SHEETS HV-13 AND HV-14.

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5/16/2019 4:09:25 PM

ADDENDA / REVISIONS	

SCALE
0 100 200 300
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: KRK	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-06
SECTION
WRA
SHEET NO.
31

CLOTHOID CURVE NO. 15 – I-95 MAINLINE

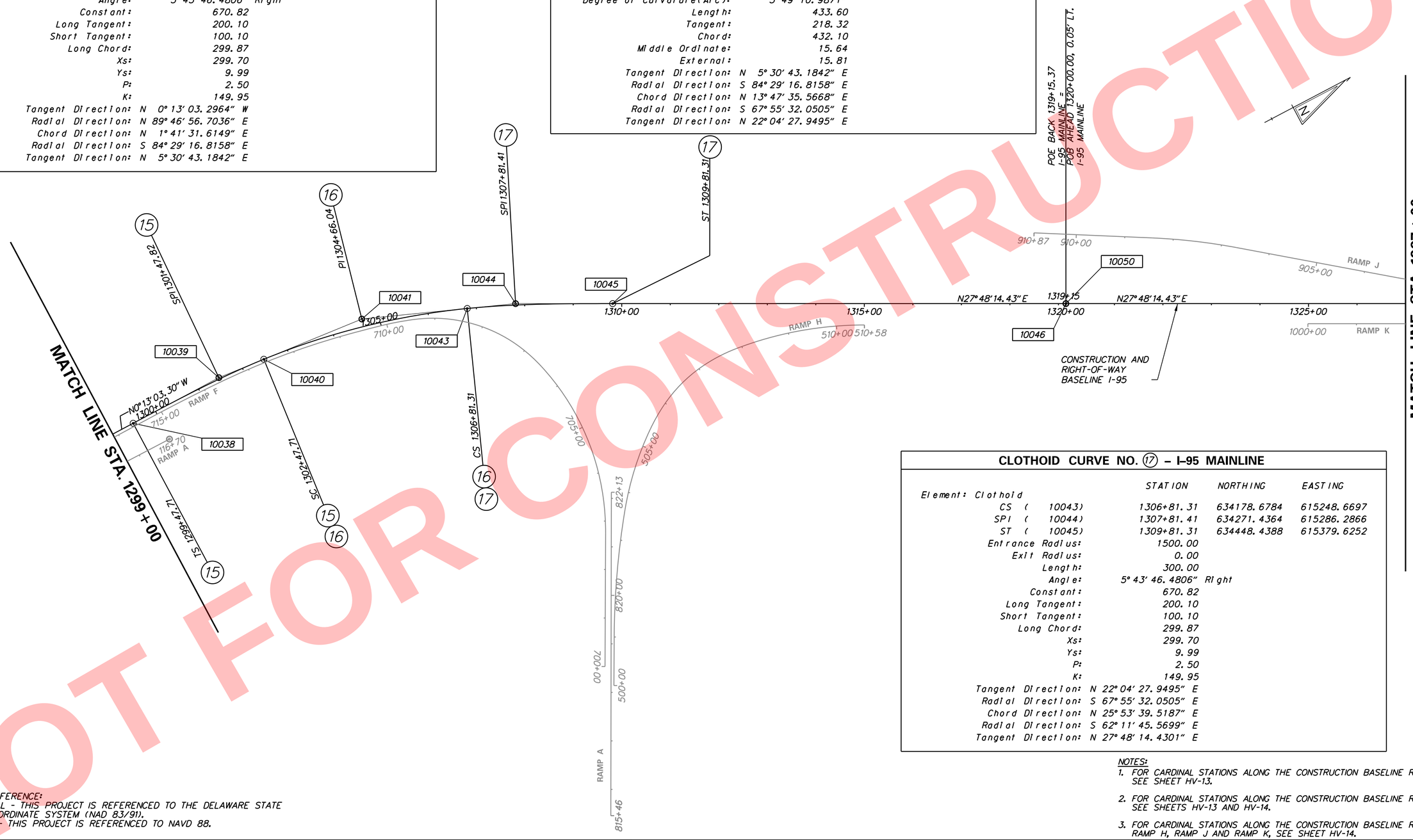
Element: Clothold	STATION	NORTHING	EASTING
TS (10038)	1299+47.71	633459.3076	615136.7955
SPI (10039)	1301+47.82	633659.4110	615136.0356
SC (10040)	1302+47.71	633759.0435	615145.6502
Entrance Radius:	0.00		
Exit Radius:	1500.00		
Length:	300.00		
Angle:	5° 43′ 46.4806″ Right		
Constant:	670.82		
Long Tangent:	200.10		
Short Tangent:	100.10		
Long Chord:	299.87		
Xs:	299.70		
Ys:	9.99		
P:	2.50		
K:	149.95		
Tangent Direction:	N 0° 13′ 03.2964″ W		
Radial Direction:	N 89° 46′ 56.7036″ E		
Chord Direction:	N 1° 41′ 31.6149″ E		
Radial Direction:	S 84° 29′ 16.8158″ E		
Tangent Direction:	N 5° 30′ 43.1842″ E		

CIRCULAR CURVE NO. 16 – I-95 MAINLINE

Element: Circular	STATION	NORTHING	EASTING
SC (10040)	1302+47.71	633759.0435	615145.6502
PI (10041)	1304+66.04	633976.3581	615166.6211
CC (10042)		633614.9623	616638.7144
CS (10043)	1306+81.31	634178.6784	615248.6697
Radius:	1500.00		
Delta:	16° 33′ 44.7653″ Right		
Degree of Curvature(Arc):	3° 49′ 10.9871″		
Length:	433.60		
Tangent:	218.32		
Chord:	432.10		
Middle Ordinate:	15.64		
External:	15.81		
Tangent Direction:	N 5° 30′ 43.1842″ E		
Radial Direction:	S 84° 29′ 16.8158″ E		
Chord Direction:	N 13° 47′ 35.5668″ E		
Radial Direction:	S 67° 55′ 32.0505″ E		
Tangent Direction:	N 22° 04′ 27.9495″ E		

CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
13013	1310+00.00	0.00	634464.9669	615388.3410
13014	1315+00.00	0.00	634907.2411	615621.5653
10046	1319+15.37	0.00	635274.6561	615815.3141
10050	1320+00.00	0.00	635274.6779	615815.2728
13015	1325+00.00	0.00	635716.9521	616048.4970



CLOTHOID CURVE NO. 17 – I-95 MAINLINE

Element: Clothold	STATION	NORTHING	EASTING
CS (10043)	1306+81.31	634178.6784	615248.6697
SPI (10044)	1307+81.41	634271.4364	615286.2866
ST (10045)	1309+81.31	634448.4388	615379.6252
Entrance Radius:	1500.00		
Exit Radius:	0.00		
Length:	300.00		
Angle:	5° 43′ 46.4806″ Right		
Constant:	670.82		
Long Tangent:	200.10		
Short Tangent:	100.10		
Long Chord:	299.87		
Xs:	299.70		
Ys:	9.99		
P:	2.50		
K:	149.95		
Tangent Direction:	N 22° 04′ 27.9495″ E		
Radial Direction:	S 67° 55′ 32.0505″ E		
Chord Direction:	N 25° 53′ 39.5187″ E		
Radial Direction:	S 62° 11′ 45.5699″ E		
Tangent Direction:	N 27° 48′ 14.4301″ E		

NOTES:
1. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE RAMP A, SEE SHEET HV-13.
2. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE RAMP F, SEE SHEETS HV-13 AND HV-14.
3. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE RAMP E, RAMP H, RAMP J AND RAMP K, SEE SHEET HV-14.

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

SCALE 0 100 200 300 FEET

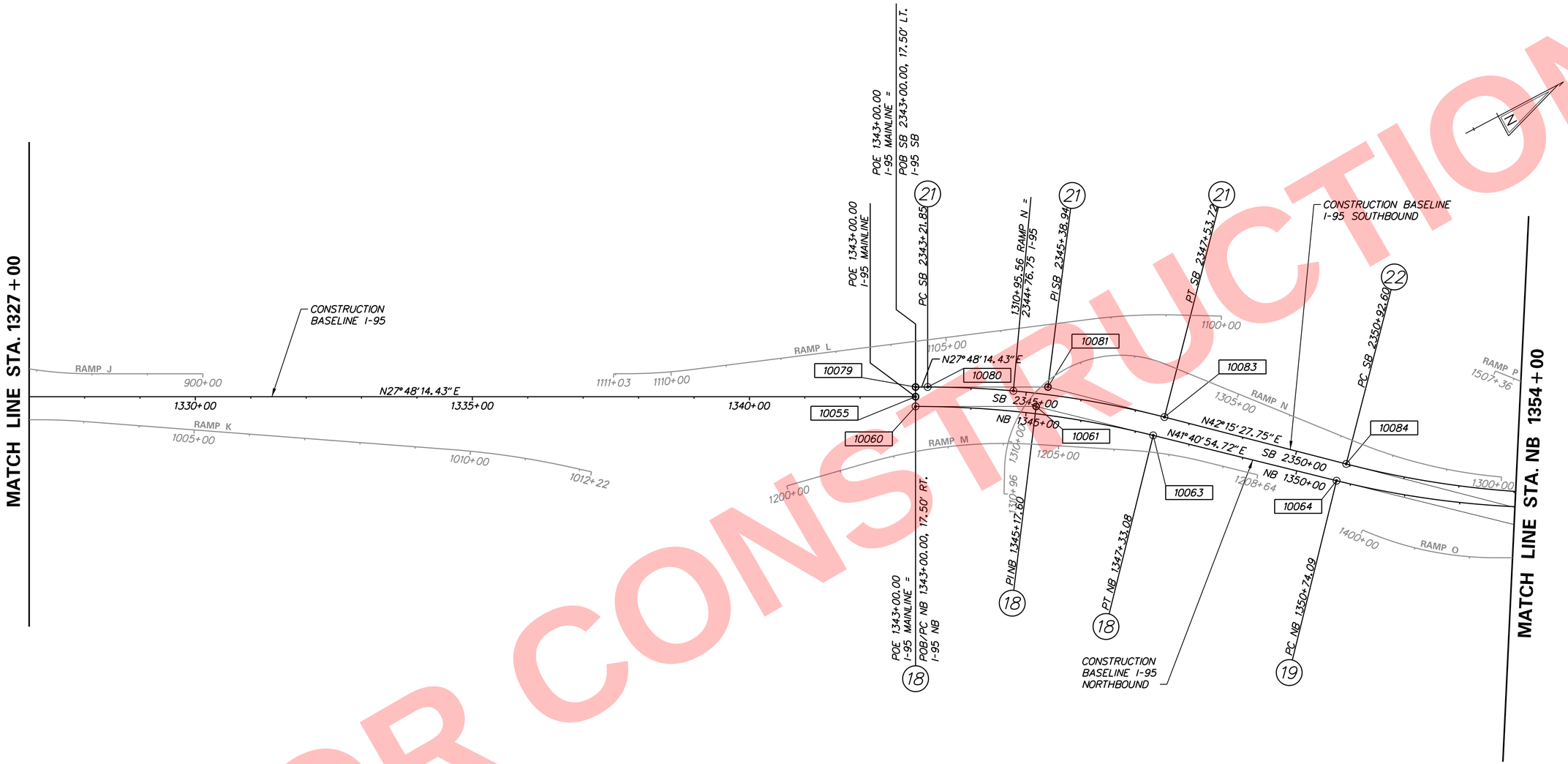
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: KRK
COUNTY: NEW CASTLE	CHECKED BY: BRT

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-07

SECTION	SHEET NO.
WRA	32



CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
13016	1330+00.00	0.00	636159.2263	616281.7213
13017	1335+00.00	0.00	636601.5005	616514.9456
13018	1340+00.00	0.00	637043.7746	616748.1698
10055	1343+00.00	0.00	637309.1391	616888.1044
10079	SB 2343+00.00	0.00	637317.3020	616872.6248

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOTES:
1. SEE SHEET HV-17 FOR CURVE DATA CHARTS.
2. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE RAMP J AND RAMP K, SEE SHEET HV-14.
3. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE RAMP L, RAMP M, RAMP N, RAMP O AND RAMP P, SEE SHEET HV-15.

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 100 200 300 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: KRK
COUNTY	
NEW CASTLE	CHECKED BY: BRT

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-08

SECTION	SHEET NO.
WRA	33

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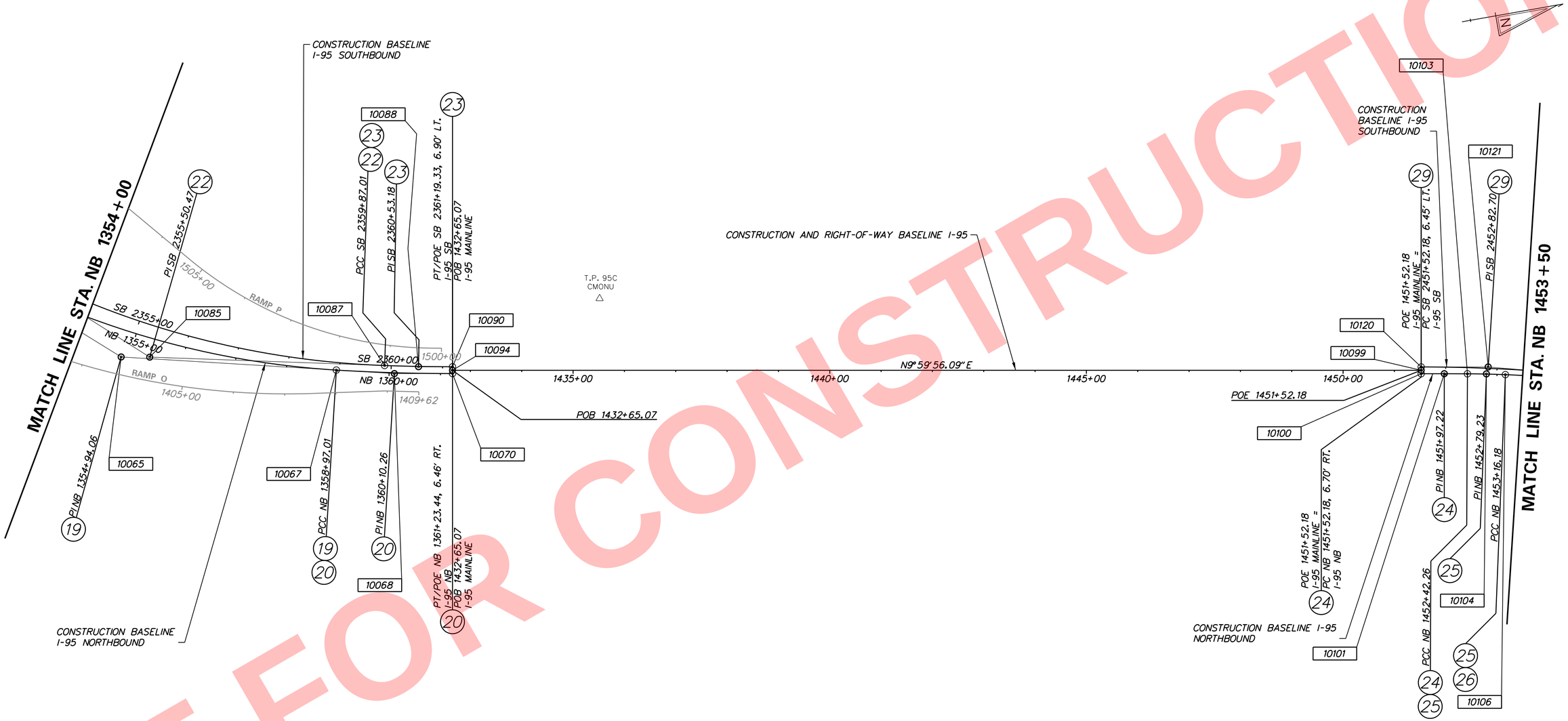

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
10094	1432+65.07	0.00	638855.4894	617793.4585
13019	1435+00.00	0.00	639086.8513	617834.2493
13020	1440+00.00	0.00	639579.2568	617921.0640
13021	1445+00.00	0.00	640071.6644	618007.8792
13022	1450+00.00	0.00	640564.0678	618094.6935
10099	1451+52.18	0.00	640713.9392	618121.1170

HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
95C	1435+51.61	-139.74	639161.9435	617705.5887	91.86

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOTES:
1. SEE SHEETS HV-17, HV-18 AND HV-19 FOR CURVE DATA CHARTS.
2. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE RAMP O AND RAMP P, SEE SHEET HV-15.

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 100 200 300 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: KRK
COUNTY	
NEW CASTLE	CHECKED BY: BRT

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-09

SECTION	SHEET NO.
WRA	34

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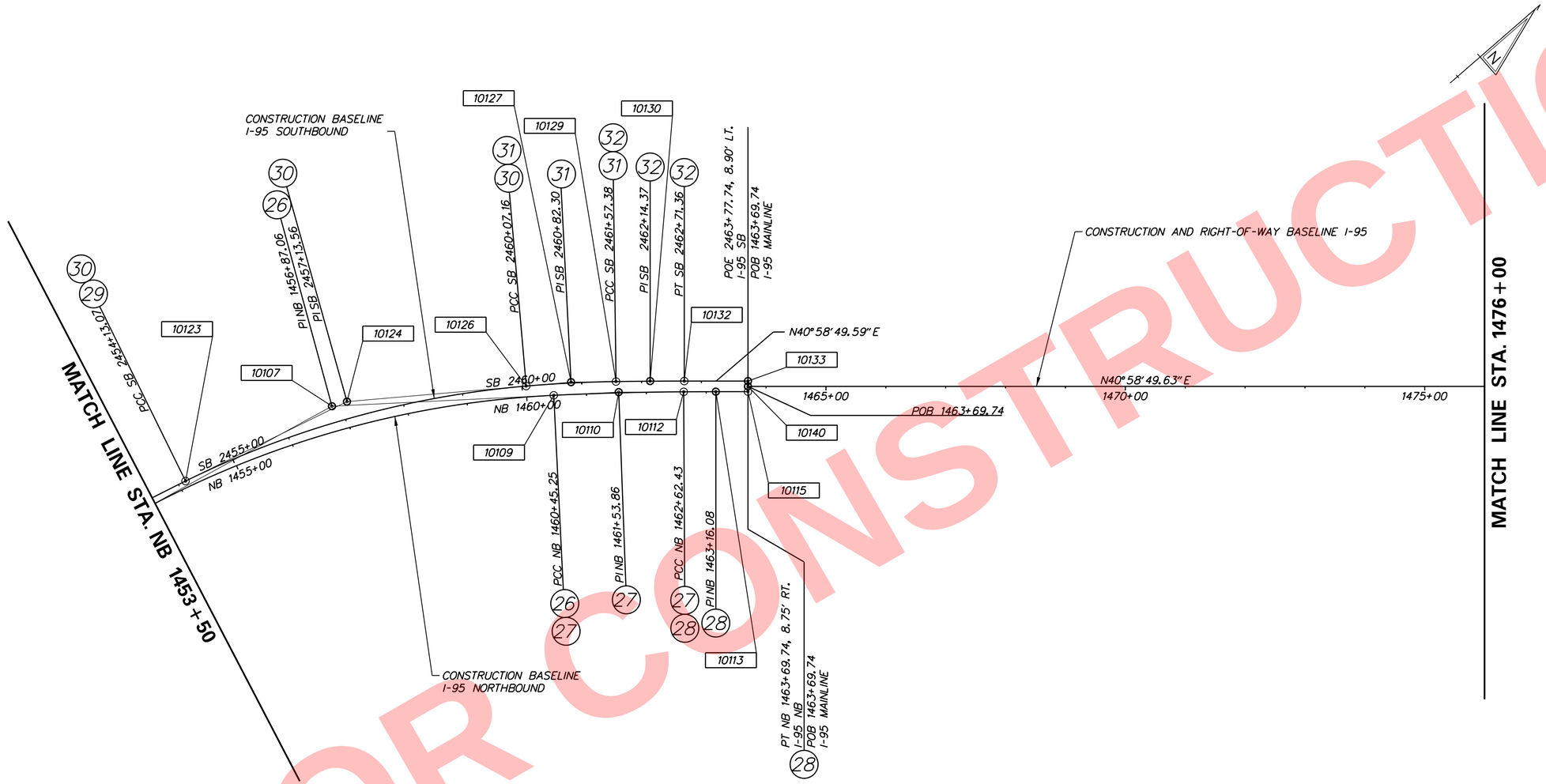

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
10133	SB 2463+77.74	0.00	641788.4376	618660.6899
10140	1463+69.74	0.00	641782.6010	618667.4088
13023	1465+00.00	0.00	641881.6946	618753.4902
13024	1470+00.00	0.00	642259.1613	619081.3910
13025	1475+00.00	0.00	642636.6279	619409.2917

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOTES:
1. SEE SHEET HV-18 AND HV-19 FOR CURVE DATA CHARTS

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE
0 100 200 300
FEET

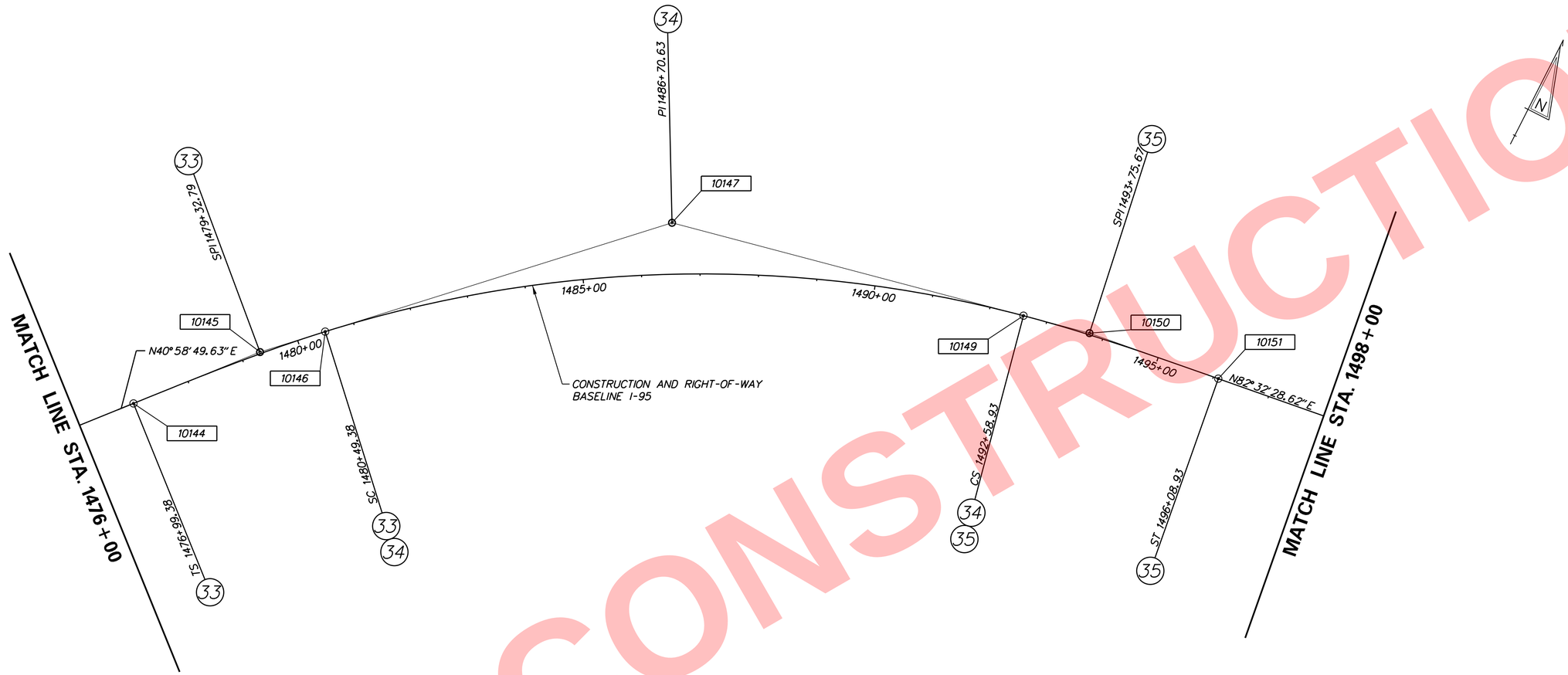
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: KRK
COUNTY	CHECKED BY: BRT
NEW CASTLE	

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-10

SECTION	SHEET NO.
WRA	35



DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

CLOTHOID CURVE NO. 33 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothoid			
TS (10144)	1476+99.38	642786.3917	619539.3897
SPI (10145)	1479+32.79	642962.6060	619692.4649
SC (10146)	1480+49.38	643044.2189	619775.9336
Entrance Radius:	0.00		
Exit Radius:	2150.00		
Length:	350.00		
Angle:	4°39'48.9684" Right		
Constant:	867.47		
Long Tangent:	233.41		
Short Tangent:	116.74		
Long Chord:	349.90		
Xs:	349.77		
Ys:	9.49		
P:	2.37		
K:	174.96		
Tangent Direction:	N 40°58'49.6287" E		
Radial Direction:	S 49°01'10.3713" E		
Chord Direction:	N 42°32'05.5122" E		
Radial Direction:	S 44°21'21.4029" E		
Tangent Direction:	N 45°38'38.5971" E		

CIRCULAR CURVE NO. 34 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Circular			
SC (10146)	1480+49.38	643044.2189	619775.9336
PI (10147)	1486+70.63	643478.5426	620220.1331
CC (10148)		641506.9465	621279.0282
CS (10149)	1492+58.93	643609.0047	620827.5292
Radius:	2150.00		
Delta:	32°14'01.0280" Right		
Degree of Curvature(Arc):	2°39'53.7119"		
Length:	1209.55		
Tangent:	621.25		
Chord:	1193.67		
Middle Ordinate:	84.50		
External:	87.96		
Tangent Direction:	N 45°38'38.5971" E		
Radial Direction:	S 44°21'21.4029" E		
Chord Direction:	N 61°45'39.1111" E		
Radial Direction:	S 12°07'20.3749" E		
Tangent Direction:	N 77°52'39.6251" E		

CLOTHOID CURVE NO. 35 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothoid			
CS (10149)	1492+58.93	643609.0047	620827.5292
SPI (10150)	1493+75.67	643633.5201	620941.6664
ST (10151)	1496+08.93	643663.8200	621173.1057
Entrance Radius:	2150.00		
Exit Radius:	0.00		
Length:	350.00		
Angle:	4°39'48.9959" Right		
Constant:	867.47		
Long Tangent:	233.41		
Short Tangent:	116.74		
Long Chord:	349.90		
Xs:	349.77		
Ys:	9.49		
P:	2.37		
K:	174.96		
Tangent Direction:	N 77°52'39.6251" E		
Radial Direction:	S 12°07'20.3749" E		
Chord Direction:	N 80°59'12.6029" E		
Radial Direction:	S 7°27'31.3790" E		
Tangent Direction:	N 82°32'28.6210" E		

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 100 200 300 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: KRK	
COUNTY	CHECKED BY: BRT	
NEW CASTLE		

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-11
SECTION WRA
SHEET NO. 36

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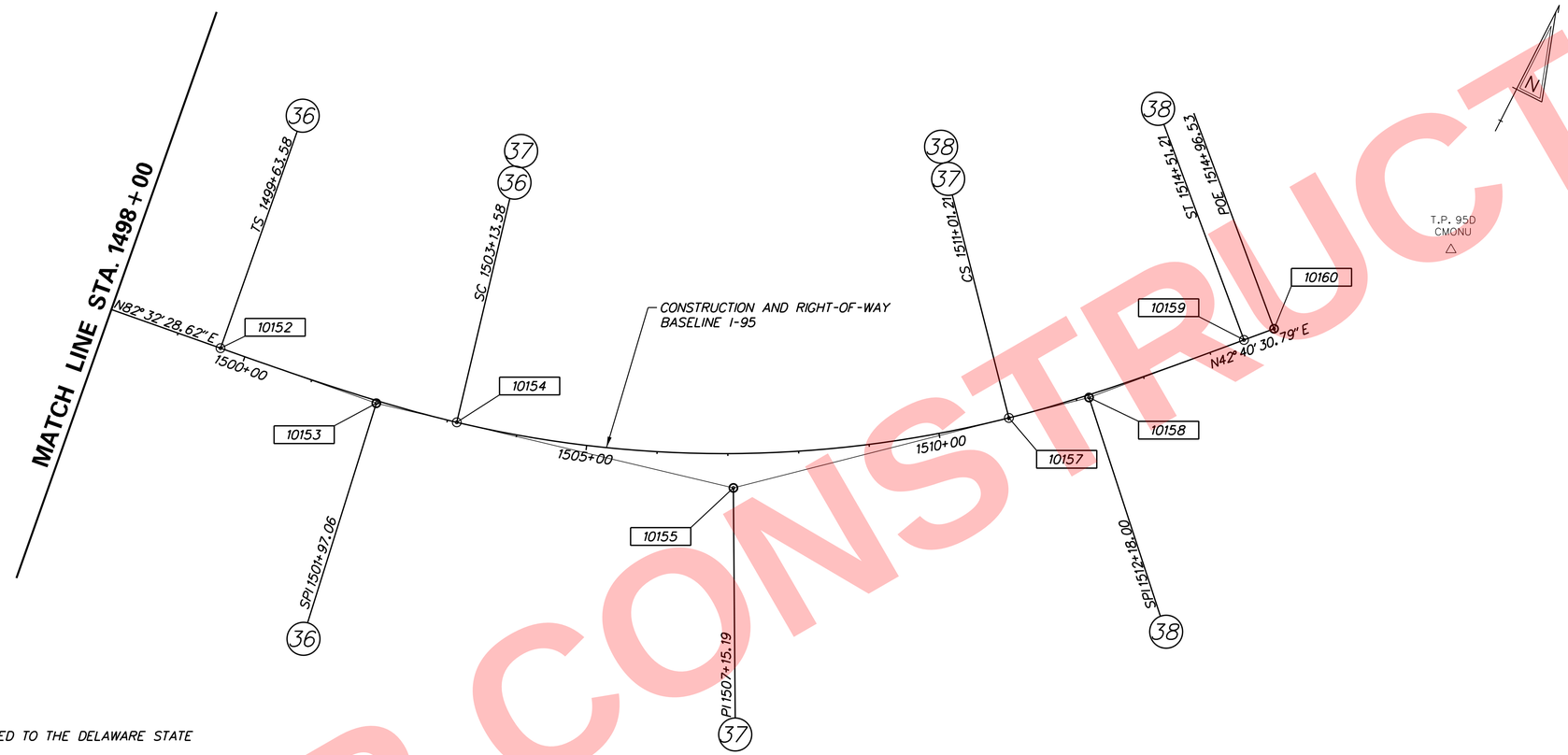
HORIZONTAL / VERTICAL CONTROL DATA					
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
95D	N/A	N/A	644621.0402	623011.5164	200.97

CONSTRUCTION ALIGNMENT CONTROL				
POINT	STATION	OFFSET	NORTHING	EASTING
10160	1514+96.53	0.00	644408.3785	622839.2245



DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

CLOTHOID CURVE NO. 36 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothoid			
TS (10152)	1499+63.58	643709.8580	621524.7566
SPI (10153)	1501+97.06	643740.1656	621756.2546
SC (10154)	1503+13.58	643767.6116	621869.7781
Entrance Radius:	0.00		
Exit Radius:	1635.00		
Length:	350.00		
Angle:	6° 07' 57.2728" Left		
Constant:	756.47		
Long Tangent:	233.47		
Short Tangent:	116.79		
Long Chord:	349.82		
Xs:	349.60		
Ys:	12.48		
P:	3.12		
K:	174.93		
Tangent Direction:	N 82° 32' 28.6210" E		
Radial Direction:	S 7° 27' 31.3790" E		
Chord Direction:	N 80° 29' 50.2439" E		
Radial Direction:	S 13° 35' 28.6519" E		
Tangent Direction:	N 76° 24' 31.3481" E		

CIRCULAR CURVE NO. 37 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Circular			
SC (10154)	1503+13.58	643767.6116	621869.7781
PI (10155)	1507+15.19	643861.9873	622260.1401
CC (10156)		645356.8262	621485.5623
CS (10157)	1511+01.21	644126.4813	622562.3521
Radius:	1635.00		
Delta:	27° 36' 03.2805" Left		
Degree of Curvature(Arc):	3° 30' 15.5845"		
Length:	787.62		
Tangent:	401.61		
Chord:	780.03		
Middle Ordinate:	47.20		
External:	48.60		
Tangent Direction:	N 76° 24' 31.3481" E		
Radial Direction:	S 13° 35' 28.6519" E		
Chord Direction:	N 62° 36' 29.7079" E		
Radial Direction:	S 41° 11' 31.9324" E		
Tangent Direction:	N 48° 48' 28.0676" E		

CLOTHOID CURVE NO. 38 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothoid			
CS (10157)	1511+01.21	644126.4813	622562.3521
SPI (10158)	1512+18.00	644203.4004	622650.2402
ST (10159)	1514+51.21	644375.0519	622808.4983
Entrance Radius:	1635.00		
Exit Radius:	0.00		
Length:	350.00		
Angle:	6° 07' 57.2728" Left		
Constant:	756.47		
Long Tangent:	233.47		
Short Tangent:	116.79		
Long Chord:	349.82		
Xs:	349.60		
Ys:	12.48		
P:	3.12		
K:	174.93		
Tangent Direction:	N 48° 48' 28.0676" E		
Radial Direction:	S 41° 11' 31.9324" E		
Chord Direction:	N 44° 43' 09.1718" E		
Radial Direction:	S 47° 19' 29.2052" E		
Tangent Direction:	N 42° 40' 30.7948" E		

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 100 200 300 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: KRK	
COUNTY	CHECKED BY: BRT	
NEW CASTLE		

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

HV-12
SECTION WRA
SHEET NO. 37

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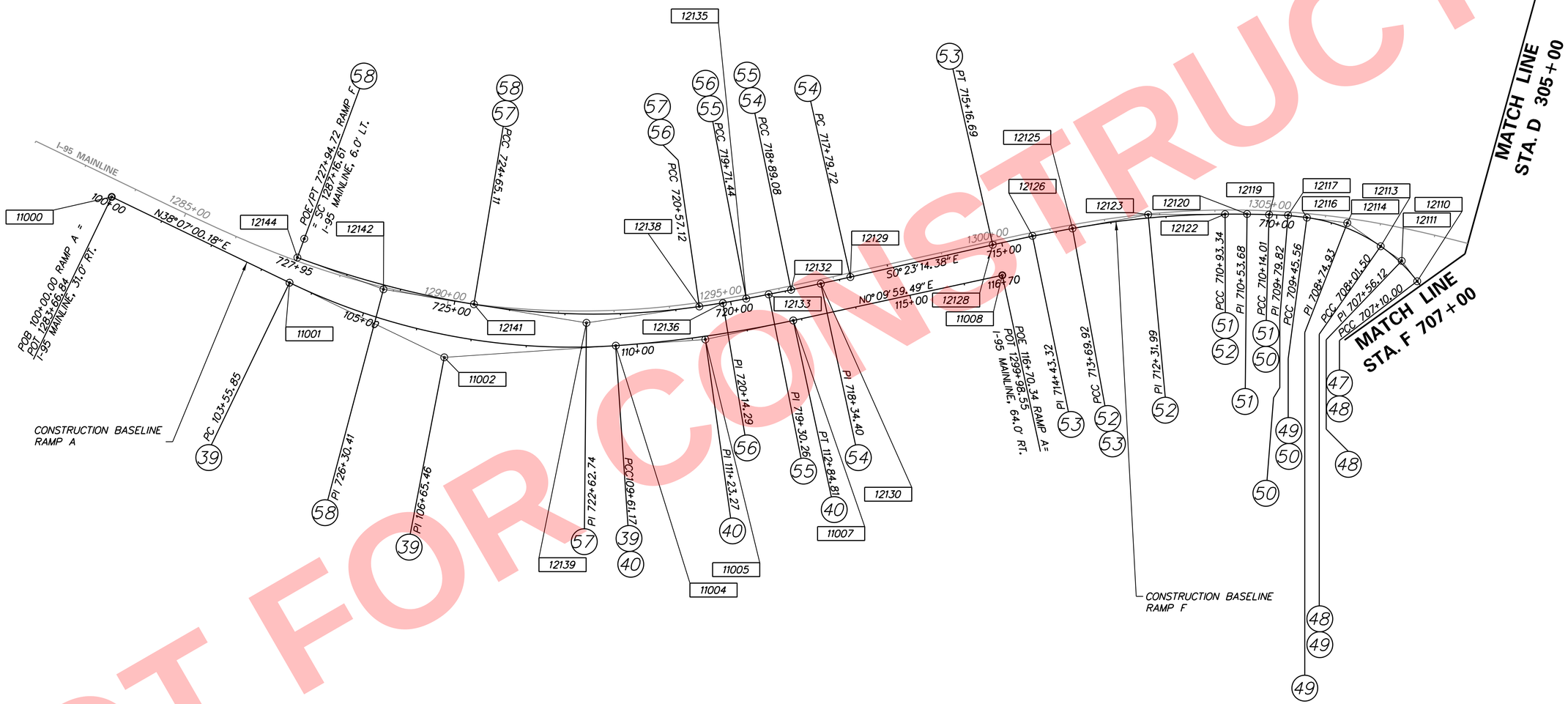

NOT FOR CONSTRUCTION

CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
11000	A 100+00.00	0.00	631972.4332	614718.9447
11008	A 116+70.34	0.00	633510.2065	615200.6040

NOTES:
1. SEE SHEETS HV-20, HV-21 AND HV-22 FOR CURVE DATA CHARTS.
2. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE I-95 MAINLINE, SEE SHEETS HV-06 AND HV-07.

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

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ADDENDA / REVISIONS

SCALE
0 100 200 300
FEET

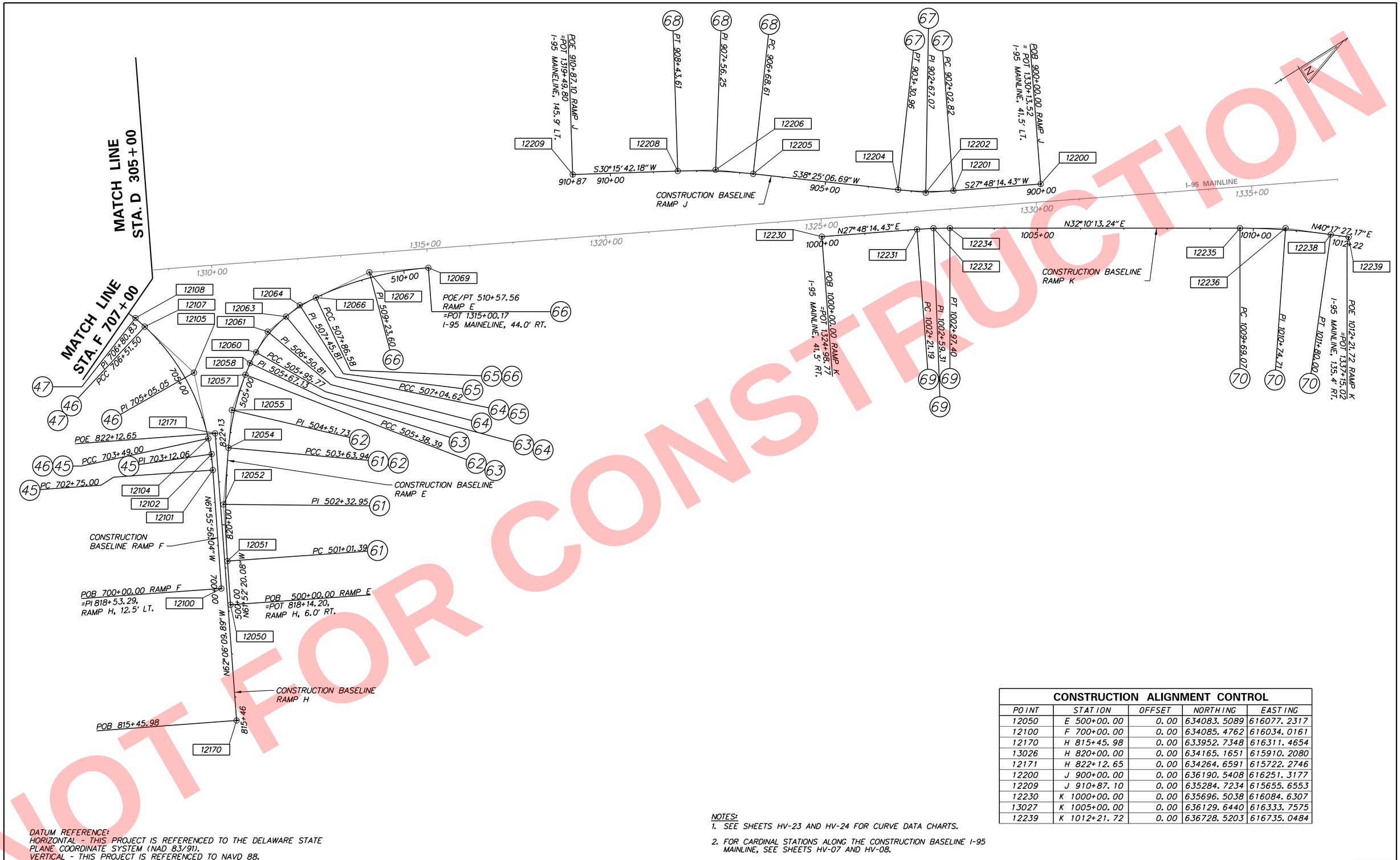
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: KRK
COUNTY	
NEW CASTLE	CHECKED BY: BRT

HORIZONTAL AND VERTICAL CONTROL I-95 RAMPS

HV-13

SECTION	SHEET NO.
WRA	38



NOT FOR CONSTRUCTION

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOTES:
1. SEE SHEETS HV-23 AND HV-24 FOR CURVE DATA CHARTS.
2. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE I-95 MAINLINE, SEE SHEETS HV-07 AND HV-08.

CONSTRUCTION ALIGNMENT CONTROL

POINT	STATION	OFFSET	NORTHING	EASTING
12050	E 500+00.00	0.00	634083.5089	616077.2317
12100	F 700+00.00	0.00	634085.4762	616034.0161
12170	H 815+45.98	0.00	633952.7348	616311.4654
13026	H 820+00.00	0.00	634165.1651	615910.2080
12171	H 822+12.65	0.00	634264.6591	615722.2746
12200	J 900+00.00	0.00	636190.5408	616251.3177
12209	J 910+87.10	0.00	635284.7234	615655.6553
12230	K 1000+00.00	0.00	635696.5038	616084.6307
13027	K 1005+00.00	0.00	636129.6440	616333.7575
12239	K 1012+21.72	0.00	636728.5203	616735.0484

ADDENDA / REVISIONS

SCALE 0 100 200 300 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT T201407404 | COUNTY NEW CASTLE | BRIDGE NO. | DESIGNED BY: KRK | CHECKED BY: BRT

HORIZONTAL AND VERTICAL CONTROL I-95 RAMPS

HV-14 | SECTION WRA | SHEET NO. 39

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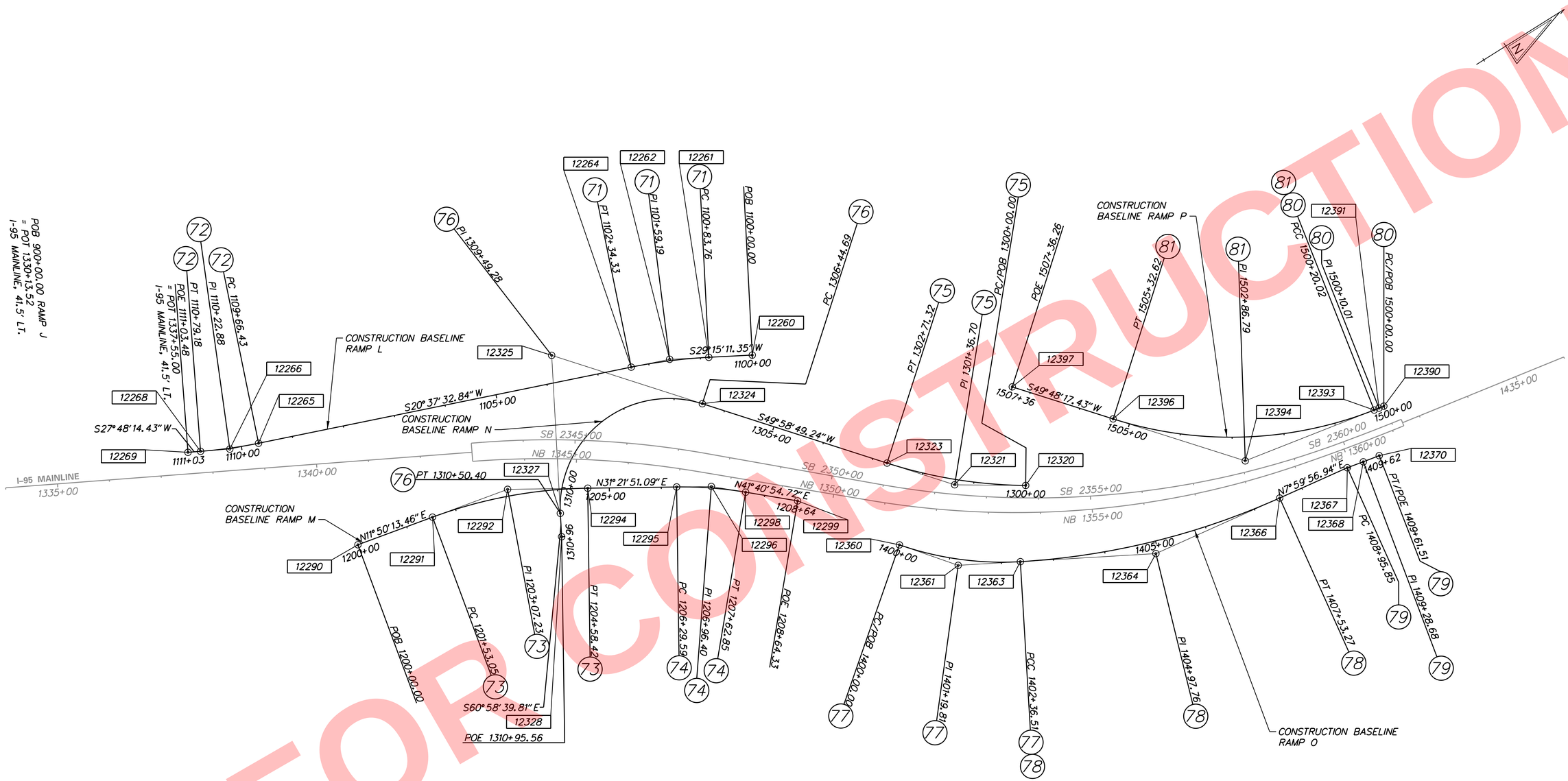
5/16/2019 4:09:31 PM



CONSTRUCTION ALIGNMENT CONTROL					
POINT	STATION		OFFSET	NORTHING	EASTING
12260	L	1100+00.00	0.00	637865.3310	617016.9848
13028	L	1105+00.00	0.00	637407.2110	616819.0390
12269	L	1111+03.48	0.00	636846.4179	616597.1812
12290	M	1200+00.00	0.00	637028.5196	616922.0039
12299	M	1208+64.33	0.00	637789.7577	617301.0456
12328	N	1310+95.56	0.00	637368.6132	617117.6589
12397	P	1507+36.26	0.00	638256.3972	617335.1908

DATUM REFERENCE:
HORIZONTAL - THIS PROJECT IS REFERENCED TO THE DELAWARE STATE PLANE COORDINATE SYSTEM (NAD 83/91).
VERTICAL - THIS PROJECT IS REFERENCED TO NAVD 88.

NOTES:
1. SEE SHEETS HV-25 AND HV-26 FOR CURVE DATA CHARTS.
2. FOR CARDINAL STATIONS ALONG THE CONSTRUCTION BASELINE I-95 MAINLINE, SEE SHEETS HV-08 AND HV-09.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE
0 100 200 300
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: KRK	
COUNTY	CHECKED BY: BRT	
NEW CASTLE		

HORIZONTAL AND VERTICAL CONTROL I-95 RAMPS

HV-15
SECTION
WRA
SHEET NO.
40

CLOTHOID CURVE NO. 9 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothold			
TS (10022)	1271+78.80	630954.4958	614149.2213
SPI (10023)	1273+78.90	631149.7791	614192.8838
SC (10024)	1274+78.80	631244.7941	614224.3674
Entrance Radius:	0.00		
Exit Radius:	1500.00		
Length:	300.00		
Angle:	5° 43′ 46.4806″ Right		
Constant:	670.82		
Long Tangent:	200.10		
Short Tangent:	100.10		
Long Chord:	299.87		
Xs:	299.70		
Ys:	9.99		
P:	2.50		
K:	149.95		
Tangent Direction:	N 12° 36′ 11.6002″ E		
Radial Direction:	S 77° 23′ 48.3998″ E		
Chord Direction:	N 14° 30′ 46.5115″ E		
Radial Direction:	S 71° 40′ 01.9192″ E		
Tangent Direction:	N 18° 19′ 58.0808″ E		

CIRCULAR CURVE NO. 10 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Circular			
SC (10024)	1274+78.80	631244.7941	614224.3674
PI (10025)	1276+63.69	631420.3087	614282.5248
CC (10026)		630772.9902	615648.2357
CS (10027)	1278+46.74	631576.4463	614381.5636
Radius:	1500.00		
Delta:	14° 03′ 15.6441″ Right		
Degree of Curvature(Arc):	3° 49′ 10.9871″		
Length:	367.94		
Tangent:	184.90		
Chord:	367.02		
Middle Ordinate:	11.27		
External:	11.35		
Tangent Direction:	N 18° 19′ 58.0808″ E		
Radial Direction:	S 71° 40′ 01.9192″ E		
Chord Direction:	N 25° 21′ 35.9029″ E		
Radial Direction:	S 57° 36′ 46.2751″ E		
Tangent Direction:	N 32° 23′ 13.7249″ E		

CLOTHOID CURVE NO. 11 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothold			
CS (10027)	1278+46.74	631576.4463	614381.5636
SPI (10028)	1279+46.83	631660.9716	614435.1784
ST (10029)	1281+46.74	631818.4051	614558.6962
Entrance Radius:	1500.00		
Exit Radius:	0.00		
Length:	300.00		
Angle:	5° 43′ 46.4806″ Right		
Constant:	670.82		
Long Tangent:	200.10		
Short Tangent:	100.10		
Long Chord:	299.87		
Xs:	299.70		
Ys:	9.99		
P:	2.50		
K:	149.95		
Tangent Direction:	N 32° 23′ 13.7249″ E		
Radial Direction:	S 57° 36′ 46.2751″ E		
Chord Direction:	N 36° 12′ 25.2942″ E		
Radial Direction:	S 51° 52′ 59.7945″ E		
Tangent Direction:	N 38° 07′ 00.2055″ E		

CLOTHOID CURVE NO. 12 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothold			
TS (10030)	1284+16.61	632030.7298	614725.2802
SPI (10031)	1286+16.72	632188.1633	614848.7980
SC (10032)	1287+16.61	632272.6886	614902.4128
Entrance Radius:	0.00		
Exit Radius:	1500.00		
Length:	300.00		
Angle:	5° 43′ 46.4806″ Left		
Constant:	670.82		
Long Tangent:	200.10		
Short Tangent:	100.10		
Long Chord:	299.87		
Xs:	299.70		
Ys:	9.99		
P:	2.50		
K:	149.95		
Tangent Direction:	N 38° 07′ 00.2055″ E		
Radial Direction:	S 51° 52′ 59.7945″ E		
Chord Direction:	N 36° 12′ 25.2942″ E		
Radial Direction:	S 57° 36′ 46.2751″ E		
Tangent Direction:	N 32° 23′ 13.7249″ E		

CIRCULAR CURVE NO. 13 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Circular			
SC (10032)	1287+16.61	632272.6886	614902.4128
PI (10033)	1290+75.00	632575.3305	615094.3800
CC (10034)		633076.1447	613635.7407
CS (10035)	1294+20.20	632932.0634	615128.8048
Radius:	1500.00		
Delta:	26° 52′ 30.5407″ Left		
Degree of Curvature(Arc):	3° 49′ 10.9871″		
Length:	703.59		
Tangent:	358.39		
Chord:	697.16		
Middle Ordinate:	41.06		
External:	42.22		
Tangent Direction:	N 32° 23′ 13.7249″ E		
Radial Direction:	S 57° 36′ 46.2751″ E		
Chord Direction:	N 18° 56′ 58.4546″ E		
Radial Direction:	S 84° 29′ 16.8158″ E		
Tangent Direction:	N 5° 30′ 43.1842″ E		

CLOTHOID CURVE NO. 14 – I-95 MAINLINE

	STATION	NORTHING	EASTING
Element: Clothold			
CS (10035)	1294+20.20	632932.0634	615128.8048
SPI (10036)	1295+20.30	633031.6960	615138.4194
ST (10037)	1297+20.20	633231.7994	615137.6595
Entrance Radius:	1500.00		
Exit Radius:	0.00		
Length:	300.00		
Angle:	5° 43′ 46.4806″ Left		
Constant:	670.82		
Long Tangent:	200.10		
Short Tangent:	100.10		
Long Chord:	299.87		
Xs:	299.70		
Ys:	9.99		
P:	2.50		
K:	149.95		
Tangent Direction:	N 5° 30′ 43.1842″ E		
Radial Direction:	S 84° 29′ 16.8158″ E		
Chord Direction:	N 1° 41′ 31.6149″ E		
Radial Direction:	N 89° 46′ 56.7036″ E		
Tangent Direction:	N 0° 13′ 03.2964″ W		

NOTES:
1. SEE SHEET HV-06 FOR BASELINES.

NOT FOR CONSTRUCTION

CIRCULAR CURVE NO. 18 – I-95 NB

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10060)	1343+00.00	637300.9763	616903.5840
PI	(10061)	1345+17.60	637493.4580	617005.0853
CC	(10062)		636466.9663	618485.1564
PT	(10063)	1347+33.08	637655.9756	617149.7910
Radius:		1788.0000		
Delta:		13° 52′ 40.2881″ Right		
Degree of Curvature(Arc):		3° 12′ 16.0630″		
Length:		433.0792		
Tangent:		217.6045		
Chord:		432.0213		
Middle Ordinate:		13.0962		
External:		13.1929		
Tangent Direction:		N 27° 48′ 14.4301″ E		
Radial Direction:		S 62° 11′ 45.5699″ E		
Chord Direction:		N 34° 44′ 34.5741″ E		
Radial Direction:		S 48° 19′ 05.2818″ E		
Tangent Direction:		N 41° 40′ 54.7182″ E		

CIRCULAR CURVE NO. 19 – I-95 NB

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10064)	1350+74.09	637910.6596	617376.5615
PI	(10065)	1354+94.06	638224.3133	617655.8388
CC	(10066)		639022.5296	616127.8305
PCC	(10067)	1358+97.01	638632.7092	617753.7531
Radius:		1672.0000		
Delta:		28° 11′ 58.1852″ Left		
Degree of Curvature(Arc):		3° 25′ 36.4119″		
Length:		822.9150		
Tangent:		419.9696		
Chord:		814.6343		
Middle Ordinate:		50.3722		
External:		51.9369		
Tangent Direction:		N 41° 40′ 54.7182″ E		
Radial Direction:		S 48° 19′ 05.2818″ E		
Chord Direction:		N 27° 34′ 55.6255″ E		
Radial Direction:		S 76° 31′ 03.4671″ E		
Tangent Direction:		N 13° 28′ 56.5329″ E		

CIRCULAR CURVE NO. 20 – I-95 NB

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10067)	1358+97.01	638632.7092	617753.7531
PI	(10068)	1360+10.26	638742.8381	617780.1568
CC	(10069)		639501.0179	614132.0780
PT	(10070)	1361+23.44	638854.3678	617799.8203
Radius:		3724.3107		
Delta:		3° 29′ 00.4475″ Left		
Degree of Curvature(Arc):		1° 32′ 18.3351″		
Length:		226.4299		
Tangent:		113.2498		
Chord:		226.3950		
Middle Ordinate:		1.7207		
External:		1.7215		
Tangent Direction:		N 13° 28′ 56.5329″ E		
Radial Direction:		S 76° 31′ 03.4671″ E		
Chord Direction:		N 11° 44′ 26.3092″ E		
Radial Direction:		S 80° 00′ 03.9145″ E		
Tangent Direction:		N 9° 59′ 56.0855″ E		

CIRCULAR CURVE NO. 21 – I-95 SB

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10080)	2343+21.85	637336.6271	616882.8155
PI	(10081)	2345+38.94	637528.6548	616984.0774
CC	(10082)		636538.0672	618397.1623
PT	(10083)	2347+53.72	637689.3300	617130.0640
Radius:		1712.0000		
Delta:		14° 27′ 13.3674″ Right		
Degree of Curvature(Arc):		3° 20′ 48.1779″		
Length:		431.8775		
Tangent:		217.0912		
Chord:		430.7332		
Middle Ordinate:		13.6004		
External:		13.7093		
Tangent Direction:		N 27° 48′ 14.4301″ E		
Radial Direction:		S 62° 11′ 45.5699″ E		
Chord Direction:		N 35° 01′ 51.1138″ E		
Radial Direction:		S 47° 44′ 32.2025″ E		
Tangent Direction:		N 42° 15′ 27.7975″ E		

CIRCULAR CURVE NO. 22 – I-95 SB

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10084)	2350+92.60	637940.1416	617357.9468
PI	(10085)	2355+50.47	638279.0215	617665.8468
CC	(10086)		639080.6446	616102.6902
PCC	(10087)	2359+87.01	638726.8130	617761.3702
Radius:		1696.0000		
Delta:		30° 12′ 56.8719″ Left		
Degree of Curvature(Arc):		3° 22′ 41.8400″		
Length:		894.4113		
Tangent:		457.8668		
Chord:		884.0828		
Middle Ordinate:		58.6193		
External:		60.7180		
Tangent Direction:		N 42° 15′ 27.7466″ E		
Radial Direction:		S 47° 44′ 32.2534″ E		
Chord Direction:		N 27° 08′ 59.3106″ E		
Radial Direction:		S 77° 57′ 29.1253″ E		
Tangent Direction:		N 12° 02′ 30.8747″ E		

CIRCULAR CURVE NO. 23 – I-95 SB

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10087)	2359+87.01	638726.8130	617761.3702
PI	(10088)	2360+53.18	638791.5247	617775.1746
CC	(10089)		639501.0179	614132.0780
PT	(10090)	2361+19.33	638856.6875	617786.6633
Radius:		3710.9507		
Delta:		2° 02′ 34.7892″ Left		
Degree of Curvature(Arc):		1° 32′ 38.2740″		
Length:		132.3215		
Tangent:		66.1677		
Chord:		132.3144		
Middle Ordinate:		0.5898		
External:		0.5899		
Tangent Direction:		N 12° 02′ 30.8747″ E		
Radial Direction:		S 77° 57′ 29.1253″ E		
Chord Direction:		N 11° 01′ 13.4801″ E		
Radial Direction:		S 80° 00′ 03.9145″ E		
Tangent Direction:		N 9° 59′ 56.0855″ E		

NOTES:
1. SEE SHEET HV-08 AND HV-09 FOR BASELINES.

NOT FOR CONSTRUCTION

CIRCULAR CURVE NO. 24 – I-95 NB

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10100)	1451+52.18	640712.7766	618127.7113
PI	(10101)	1451+97.22	640757.1337	618135.5318
CC	(10102)		637083.5705	638712.2532
PCC	(10103)	1452+42.26	640801.4566	618143.5433
Radius:		20902.0215		
Delta:		0° 14′ 48.9471″ Right		
Degree of Curvature(Arc):		0° 16′ 26.8175″		
Length:		90.0822		
Tangent:		45.0412		
Chord:		90.0821		
Middle Ordinate:		0.0485		
External:		0.0485		
Tangent Direction:		N 9° 59′ 56.0737″ E		
Radial Direction:		S 80° 00′ 03.9263″ E		
Chord Direction:		N 10° 07′ 20.5473″ E		
Radial Direction:		S 79° 45′ 14.9792″ E		
Tangent Direction:		N 10° 14′ 45.0208″ E		

CIRCULAR CURVE NO. 25 – I-95 NB

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10103)	1452+42.26	640801.4566	618143.5433
PI	(10104)	1452+79.23	640837.8318	618150.1183
CC	(10105)		640427.6712	620211.4613
PCC	(10106)	1453+16.18	640873.9533	618157.9685
Radius:		2101.4281		
Delta:		2° 00′ 55.7491″ Right		
Degree of Curvature(Arc):		2° 43′ 35.4587″		
Length:		73.9217		
Tangent:		36.9646		
Chord:		73.9178		
Middle Ordinate:		0.3250		
External:		0.3251		
Tangent Direction:		N 10° 14′ 45.0208″ E		
Radial Direction:		S 79° 45′ 14.9792″ E		
Chord Direction:		N 11° 15′ 12.8954″ E		
Radial Direction:		S 77° 44′ 19.2301″ E		
Tangent Direction:		N 12° 15′ 40.7699″ E		

CIRCULAR CURVE NO. 26 – I-95 NB

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10106)	1453+16.18	640873.9533	618157.9685
PI	(10107)	1456+87.06	641236.3645	618236.7307
CC	(10108)		640531.4638	619733.8770
PCC	(10109)	1460+45.25	641527.9620	618465.8952
Radius:		1612.6954		
Delta:		25° 54′ 08.0571″ Right		
Degree of Curvature(Arc):		3° 33′ 10.0660″		
Length:		729.0663		
Tangent:		370.8712		
Chord:		722.8736		
Middle Ordinate:		41.0244		
External:		42.0952		
Tangent Direction:		N 12° 15′ 40.7691″ E		
Radial Direction:		S 77° 44′ 19.2309″ E		
Chord Direction:		N 25° 12′ 44.7976″ E		
Radial Direction:		S 51° 50′ 11.1738″ E		
Tangent Direction:		N 38° 09′ 48.8262″ E		

CIRCULAR CURVE NO. 27 – I-95 NB

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10109)	1460+45.25	641527.9620	618465.8952
PI	(10110)	1461+53.86	641613.3528	618533.0032
CC	(10111)		638504.3398	622313.2657
PCC	(10112)	1462+62.43	641695.6821	618603.8337
Radius:		4893.3170		
Delta:		2° 32′ 34.4193″ Right		
Degree of Curvature(Arc):		1° 10′ 15.2349″		
Length:		217.1746		
Tangent:		108.6051		
Chord:		217.1568		
Middle Ordinate:		1.2048		
External:		1.2051		
Tangent Direction:		N 38° 09′ 48.8259″ E		
Radial Direction:		S 51° 50′ 11.1741″ E		
Chord Direction:		N 39° 26′ 06.0356″ E		
Radial Direction:		S 49° 17′ 36.7548″ E		
Tangent Direction:		N 40° 42′ 23.2452″ E		

CIRCULAR CURVE NO. 28 – I-95 NB

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10112)	1462+62.43	641695.6821	618603.8337
PI	(10113)	1463+16.08	641736.3563	618638.8271
CC	(10114)		627060.1097	635615.3782
PT	(10115)	1463+69.74	641776.8627	618674.0145
Radius:		22440.8695		
Delta:		0° 16′ 26.3469″ Right		
Degree of Curvature(Arc):		0° 15′ 19.1480″		
Length:		107.3110		
Tangent:		53.6556		
Chord:		107.3109		
Middle Ordinate:		0.0641		
External:		0.0641		
Tangent Direction:		N 40° 42′ 23.2453″ E		
Radial Direction:		S 49° 17′ 36.7547″ E		
Chord Direction:		N 40° 50′ 36.4187″ E		
Radial Direction:		S 49° 01′ 10.4078″ E		
Tangent Direction:		N 40° 58′ 49.5922″ E		

NOTES:
1. SEE SHEET HV-09 AND HV-10 FOR BASELINES.

NOT FOR CONSTRUCTION

CIRCULAR CURVE NO. 29 – I-95 SB

		STATION	NORTHING	EASTING
Element: Circular				
PC	(10120)	2451+52.18	640715.0599	618114.7610
PI	(10121)	2452+82.70	640843.5960	618137.4229
CC	(10122)		640172.0936	621194.4188
PCC	(10123)	2454+13.07	640969.7967	618170.7168
Radius:		3127.1559		
Delta:		4° 46′ 47.8235″ Right		
Degree of Curvature(Arc):		1° 49′ 55.9234″		
Length:		260.8857		
Tangent:		130.5186		
Chord:		260.8101		
Middle Ordinate:		2.7202		
External:		2.7226		
Tangent Direction:		N 9° 59′ 56.0737″ E		
Radial Direction:		S 80° 00′ 03.9263″ E		
Chord Direction:		N 12° 23′ 19.9855″ E		
Radial Direction:		S 75° 13′ 16.1028″ E		
Tangent Direction:		N 14° 46′ 43.8972″ E		

CIRCULAR CURVE NO. 30 – I-95 SB

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10123)	2454+13.07	640969.7967	618170.7168
PI	(10124)	2457+13.56	641260.3501	618247.3696
CC	(10125)		640560.9252	619720.5484
PCC	(10126)	2460+07.16	641503.4081	618424.0608
Radius:		1602.8581		
Delta:		21° 14′ 11.2325″ Right		
Degree of Curvature(Arc):		3° 34′ 28.5633″		
Length:		594.0930		
Tangent:		300.4945		
Chord:		590.6982		
Middle Ordinate:		27.4461		
External:		27.9242		
Tangent Direction:		N 14° 46′ 43.8972″ E		
Radial Direction:		S 75° 13′ 16.1028″ E		
Chord Direction:		N 25° 23′ 49.5134″ E		
Radial Direction:		S 53° 59′ 04.8703″ E		
Tangent Direction:		N 36° 00′ 55.1297″ E		

CIRCULAR CURVE NO. 31 – I-95 SB

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10126)	2460+07.16	641503.4081	618424.0608
PI	(10127)	2460+82.30	641564.1885	618468.2452
CC	(10128)		640296.5083	620084.2826
PCC	(10129)	2461+57.38	641621.5754	618516.7556
Radius:		2052.5456		
Delta:		4° 11′ 35.8871″ Right		
Degree of Curvature(Arc):		2° 47′ 29.2193″		
Length:		150.2195		
Tangent:		75.1433		
Chord:		150.1860		
Middle Ordinate:		1.3741		
External:		1.3750		
Tangent Direction:		N 36° 00′ 55.1297″ E		
Radial Direction:		S 53° 59′ 04.8703″ E		
Chord Direction:		N 38° 06′ 43.0732″ E		
Radial Direction:		S 49° 47′ 28.9833″ E		
Tangent Direction:		N 40° 12′ 31.0167″ E		

CIRCULAR CURVE NO. 32 – I-95 SB

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(10129)	2461+57.38	641621.5754	618516.7556
PI	(10130)	2462+14.37	641665.1000	618553.5481
CC	(10131)		636159.1605	624978.6795
PT	(10132)	2462+71.36	641708.1251	618590.9234
Radius:		8461.3495		
Delta:		0° 46′ 18.5754″ Right		
Degree of Curvature(Arc):		0° 40′ 37.7294″		
Length:		113.9821		
Tangent:		56.9919		
Chord:		113.9812		
Middle Ordinate:		0.1919		
External:		0.1919		
Tangent Direction:		N 40° 12′ 31.0167″ E		
Radial Direction:		S 49° 47′ 28.9833″ E		
Chord Direction:		N 40° 35′ 40.3045″ E		
Radial Direction:		S 49° 01′ 10.4078″ E		
Tangent Direction:		N 40° 58′ 49.5922″ E		

NOTES:
1. SEE SHEET HV-09 AND HV-10 FOR BASELINES.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

NOT TO SCALE

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: KRK
COUNTY	
NEW CASTLE	CHECKED BY: BRT

HORIZONTAL AND VERTICAL CONTROL I-95 MAINLINE

CIRCULAR CURVE NO. 39 – RAMP A

		STATION	NORTHING	EASTING
Element: Circular				
PC	(11001)	103+55.85	632252.3993	614938.5982
PI	(11002)	106+65.46	632495.9847	615129.7083
CC	(11003)		632973.9827	614018.8816
PCC	(11004)	109+61.17	632802.2326	615175.1960
Radius:		1169.0000		
Delta:		29° 40′ 05.5568″ Left		
Degree of Curvature(Arc):		4° 54′ 04.5514″		
Length:		605.3175		
Tangent:		309.6077		
Chord:		598.5776		
Middle Ordinate:		38.9614		
External:		40.3047		
Tangent Direction:		N 38° 07′ 00.1814″ E		
Radial Direction:		S 51° 52′ 59.8186″ E		
Chord Direction:		N 23° 16′ 57.4030″ E		
Radial Direction:		S 81° 33′ 05.3754″ E		
Tangent Direction:		N 8° 26′ 54.6246″ E		

CIRCULAR CURVE NO. 40 – RAMP A

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(11004)	109+61.17	632802.2326	615175.1960
PI	(11005)	111+23.27	632962.5772	615199.0123
CC	(11006)		633131.1876	612960.4929
PT	(11007)	112+84.81	633124.6802	615199.4835
Radius:		2239.0000		
Delta:		8° 16′ 55.1376″ Left		
Degree of Curvature(Arc):		2° 33′ 32.3629″		
Length:		323.6427		
Tangent:		162.1037		
Chord:		323.3610		
Middle Ordinate:		5.8452		
External:		5.8605		
Tangent Direction:		N 8° 26′ 54.6246″ E		
Radial Direction:		S 81° 33′ 05.3754″ E		
Chord Direction:		N 4° 18′ 27.0558″ E		
Radial Direction:		S 89° 50′ 00.5130″ E		
Tangent Direction:		N 0° 09′ 59.4870″ E		

NOT FOR CONSTRUCTION

NOTES:
1. SEE SHEETS HV-13 FOR BASELINES.

CIRCULAR CURVE NO. 48 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12110)	707+10.00	634238.4033	615371.2634
PI	(12111)	707+56.12	634218.9429	615329.4484
CC	(12112)		633971.4021	615495.5237
PCC	(12113)	708+01.50	634187.6305	615295.5849
Radius:		294.5000		
Delta:		17° 48′ 05.6699″ Left		
Degree of Curvature(Arc):		19° 27′ 18.9834″		
Length:		91.5000		
Tangent:		46.1216		
Chord:		91.1324		
Middle Ordinate:		3.5464		
External:		3.5897		
Tangent Direction:		S 65° 02′ 35.1624″ W		
Radial Direction:		N 24° 57′ 24.8376″ W		
Chord Direction:		S 56° 08′ 32.3275″ W		
Radial Direction:		N 42° 45′ 30.5074″ W		
Tangent Direction:		S 47° 14′ 29.4926″ W		

CIRCULAR CURVE NO. 49 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12113)	708+01.50	634187.6305	615295.5849
PI	(12114)	708+74.93	634137.7798	615241.6727
CC	(12115)		633965.8954	615500.6155
PCC	(12116)	709+45.56	634068.7411	615216.6670
Radius:		302.0000		
Delta:		27° 19′ 52.3958″ Left		
Degree of Curvature(Arc):		18° 58′ 19.6047″		
Length:		144.0600		
Tangent:		73.4277		
Chord:		142.6980		
Middle Ordinate:		8.5493		
External:		8.7984		
Tangent Direction:		S 47° 14′ 29.4926″ W		
Radial Direction:		N 42° 45′ 30.5074″ W		
Chord Direction:		S 33° 34′ 33.2947″ W		
Radial Direction:		N 70° 05′ 22.9032″ W		
Tangent Direction:		S 19° 54′ 37.0968″ W		

CIRCULAR CURVE NO. 50 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12116)	709+45.56	634068.7411	615216.6670
PI	(12117)	709+79.82	634036.5337	615205.0015
CC	(12118)		633846.0223	615831.5754
PCC	(12119)	710+14.01	634003.2838	615196.7645
Radius:		654.0000		
Delta:		5° 59′ 47.6094″ Left		
Degree of Curvature(Arc):		8° 45′ 38.9612″		
Length:		68.4474		
Tangent:		34.2550		
Chord:		68.4162		
Middle Ordinate:		0.8953		
External:		0.8965		
Tangent Direction:		S 19° 54′ 37.0968″ W		
Radial Direction:		N 70° 05′ 22.9032″ W		
Chord Direction:		S 16° 54′ 43.2920″ W		
Radial Direction:		N 76° 05′ 10.5127″ W		
Tangent Direction:		S 13° 54′ 49.4873″ W		

CIRCULAR CURVE NO. 51 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12119)	710+14.01	634003.2838	615196.7645
PI	(12120)	710+53.68	633964.7771	615187.2253
CC	(12121)		633427.3798	617521.4924
PCC	(12122)	710+93.34	633925.9756	615178.9666
Radius:		2395.0000		
Delta:		1° 53′ 52.4963″ Left		
Degree of Curvature(Arc):		2° 23′ 32.3092″		
Length:		79.3341		
Tangent:		39.6707		
Chord:		79.3305		
Middle Ordinate:		0.3285		
External:		0.3285		
Tangent Direction:		S 13° 54′ 49.4873″ W		
Radial Direction:		N 76° 05′ 10.5127″ W		
Chord Direction:		S 12° 57′ 53.2392″ W		
Radial Direction:		N 77° 59′ 03.0089″ W		
Tangent Direction:		S 12° 00′ 56.9911″ W		

CIRCULAR CURVE NO. 52 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12122)	710+93.34	633925.9756	615178.9666
PI	(12123)	712+31.99	633790.3694	615150.1034
CC	(12124)		633597.1376	616723.9286
PCC	(12125)	713+69.92	633651.8086	615145.3048
Radius:		1579.5702		
Delta:		10° 01′ 56.4653″ Left		
Degree of Curvature(Arc):		3° 37′ 38.2866″		
Length:		276.5789		
Tangent:		138.6439		
Chord:		276.2257		
Middle Ordinate:		6.0497		
External:		6.0729		
Tangent Direction:		S 12° 00′ 56.9911″ W		
Radial Direction:		N 77° 59′ 03.0089″ W		
Chord Direction:		S 6° 59′ 58.7584″ W		
Radial Direction:		N 88° 00′ 59.4742″ W		
Tangent Direction:		S 1° 59′ 00.5258″ W		

CIRCULAR CURVE NO. 53 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12125)	713+69.92	633651.8086	615145.3048
PI	(12126)	714+43.32	633578.4575	615142.7645
CC	(12127)		633529.0422	618690.1796
PT	(12128)	715+16.69	633505.0641	615143.2606
Radius:		3547.0000		
Delta:		2° 22′ 14.9094″ Left		
Degree of Curvature(Arc):		1° 36′ 55.1905″		
Length:		146.7692		
Tangent:		73.3951		
Chord:		146.7587		
Middle Ordinate:		0.7591		
External:		0.7593		
Tangent Direction:		S 1° 59′ 00.5258″ W		
Radial Direction:		N 88° 00′ 59.4742″ W		
Chord Direction:		S 0° 47′ 53.0710″ W		
Radial Direction:		S 89° 36′ 45.6163″ W		
Tangent Direction:		S 0° 23′ 14.3837″ E		

CIRCULAR CURVE NO. 54 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12129)	717+79.72	633242.0409	615145.0387
PI	(12130)	718+34.40	633187.3591	615145.4084
CC	(12131)		633205.1983	609695.1633
PCC	(12132)	718+89.08	633132.6809	615144.6808
Radius:		5450.0000		
Delta:		1° 08′ 59.0128″ Right		
Degree of Curvature(Arc):		1° 03′ 04.6753″		
Length:		109.3624		
Tangent:		54.6830		
Chord:		109.3606		
Middle Ordinate:		0.2743		
External:		0.2743		
Tangent Direction:		S 0° 23′ 14.3837″ E		
Radial Direction:		S 89° 36′ 45.6163″ W		
Chord Direction:		S 0° 11′ 15.1228″ W		
Radial Direction:		N 89° 14′ 15.3708″ W		
Tangent Direction:		S 0° 45′ 44.6292″ W		

CIRCULAR CURVE NO. 55 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12132)	718+89.08	633132.6809	615144.6808
PI	(12133)	719+30.26	633091.5044	615144.1328
CC	(12134)		633203.4818	609824.1518
PCC	(12135)	719+71.44	633050.3414	615142.9477
Radius:		5321.0000		
Delta:		0° 53′ 12.5713″ Right		
Degree of Curvature(Arc):		1° 04′ 36.4294″		
Length:		82.3586		
Tangent:		41.1801		
Chord:		82.3577		
Middle Ordinate:		0.1593		
External:		0.1593		
Tangent Direction:		S 0° 45′ 44.6292″ W		
Radial Direction:		N 89° 14′ 15.3708″ W		
Chord Direction:		S 1° 12′ 20.9148″ W		
Radial Direction:		N 88° 21′ 02.7996″ W		
Tangent Direction:		S 1° 38′ 57.2004″ W		

NOTES:
1. SEE SHEET HV-14 FOR BASELINES.

NOT FOR CONSTRUCTION

CIRCULAR CURVE NO. 56 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12135)	719+71.44	633050.3414	615142.9477
PI	(12136)	720+14.29	633007.5100	615141.7145
CC	(12137)		633107.4469	613159.5866
PCC	(12138)	720+57.12	632964.7718	615138.6333
Radius:		1984.1830		
Delta:		2° 28′ 27.3352″ Right		
Degree of Curvature(Arc):		2° 53′ 15.4527″		
Length:		85.6849		
Tangent:		42.8491		
Chord:		85.6783		
Middle Ordinate:		0.4625		
External:		0.4626		
Tangent Direction:		S 1° 38′ 57.2004″ W		
Radial Direction:		N 88° 21′ 02.7996″ W		
Chord Direction:		S 2° 53′ 10.8680″ W		
Radial Direction:		N 85° 52′ 35.4644″ W		
Tangent Direction:		S 4° 07′ 24.5356″ W		

CIRCULAR CURVE NO. 57 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12138)	720+57.12	632964.7718	615138.6333
PI	(12139)	722+62.74	632759.6877	615123.8482
CC	(12140)		633060.1518	613815.6172
PCC	(12141)	724+65.11	632568.7045	615047.6677
Radius:		1326.4498		
Delta:		17° 37′ 22.3248″ Right		
Degree of Curvature(Arc):		4° 19′ 10.1404″		
Length:		407.9855		
Tangent:		205.6163		
Chord:		406.3792		
Middle Ordinate:		15.6550		
External:		15.8420		
Tangent Direction:		S 4° 07′ 24.5356″ W		
Radial Direction:		N 85° 52′ 35.4644″ W		
Chord Direction:		S 12° 56′ 05.6980″ W		
Radial Direction:		N 68° 15′ 13.1396″ W		
Tangent Direction:		S 21° 44′ 46.8604″ W		

CIRCULAR CURVE NO. 58 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12141)	724+65.11	632568.7045	615047.6677
PI	(12142)	726+30.41	632415.1704	614986.4252
CC	(12143)		633213.5567	613431.0336
PT	(12144)	727+94.72	632275.9097	614897.3755
Radius:		1740.5000		
Delta:		10° 51′ 01.3799″ Right		
Degree of Curvature(Arc):		3° 17′ 30.8938″		
Length:		329.6070		
Tangent:		165.2978		
Chord:		329.1147		
Middle Ordinate:		7.7966		
External:		7.8317		
Tangent Direction:		S 21° 44′ 46.8604″ W		
Radial Direction:		N 68° 15′ 13.1396″ W		
Chord Direction:		S 27° 10′ 17.5504″ W		
Radial Direction:		N 57° 24′ 11.7597″ W		
Tangent Direction:		S 32° 35′ 48.2403″ W		

NOTES:
1. SEE SHEET HV-13 FOR BASELINES.

NOT FOR CONSTRUCTION

CIRCULAR CURVE NO. 47 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12107)	706+51.50	634258.2613	615426.2082
PI	(12108)	706+80.83	634250.7775	615397.8521
CC	(12109)		633939.6702	615510.2915
PCC	(12110)	707+10.00	634238.4033	615371.2634
Radius:		329.5000		
Delta:		10° 10′ 20.6105″ Left		
Degree of Curvature(Arc):		17° 23′ 19.3342″		
Length:		58.5000		
Tangent:		29.3271		
Chord:		58.4232		
Middle Ordinate:		1.2974		
External:		1.3026		
Tangent Direction:		S 75° 12′ 55.7729″ W		
Radial Direction:		N 14° 47′ 04.2271″ W		
Chord Direction:		S 70° 07′ 45.4677″ W		
Radial Direction:		N 24° 57′ 24.8376″ W		
Tangent Direction:		S 65° 02′ 35.1624″ W		

CIRCULAR CURVE NO. 63 – RAMP E

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12057)	505+38.39	634396.4252	615644.6310
PI	(12058)	505+67.13	634419.4374	615627.4046
CC	(12059)		634627.1436	615952.8419
PCC	(12060)	505+95.77	634444.7527	615613.7866
Radius:		385.0000		
Delta:		8° 32′ 24.0768″ Right		
Degree of Curvature(Arc):		14° 52′ 55.2743″		
Length:		57.3848		
Tangent:		28.7457		
Chord:		57.3317		
Middle Ordinate:		1.0687		
External:		1.0716		
Tangent Direction:		N 36° 49′ 03.1673″ W		
Radial Direction:		N 53° 10′ 56.8327″ E		
Chord Direction:		N 32° 32′ 51.1289″ W		
Radial Direction:		N 61° 43′ 20.9095″ E		
Tangent Direction:		N 28° 16′ 39.0905″ W		

CIRCULAR CURVE NO. 45 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12101)	702+75.00	634214.8680	615791.3584
PI	(12102)	703+12.06	634232.3065	615758.6547
CC	(12103)		633756.0243	615546.6903
PCC	(12104)	703+49.00	634244.9305	615723.8083
Radius:		520.0000		
Delta:		8° 09′ 13.0686″ Left		
Degree of Curvature(Arc):		11° 01′ 06.3089″		
Length:		74.0000		
Tangent:		37.0626		
Chord:		73.9376		
Middle Ordinate:		1.3158		
External:		1.3191		
Tangent Direction:		N 61° 55′ 56.0356″ W		
Radial Direction:		N 28° 04′ 03.9644″ E		
Chord Direction:		N 66° 00′ 32.5699″ W		
Radial Direction:		N 19° 54′ 50.8958″ E		
Tangent Direction:		N 70° 05′ 09.1042″ W		

CIRCULAR CURVE NO. 61 – RAMP E

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12051)	501+01.39	634131.3085	615987.8153
PI	(12052)	502+32.95	634193.3287	615871.7971
CC	(12053)		635582.9136	616763.8042
PCC	(12054)	503+63.94	634272.9892	615767.1025
Radius:		1646.0000		
Delta:		9° 08′ 21.1347″ Right		
Degree of Curvature(Arc):		3° 28′ 51.2762″		
Length:		262.5521		
Tangent:		131.5551		
Chord:		262.2739		
Middle Ordinate:		5.2322		
External:		5.2488		
Tangent Direction:		N 61° 52′ 20.0816″ W		
Radial Direction:		N 28° 07′ 39.9184″ E		
Chord Direction:		N 57° 18′ 09.5142″ W		
Radial Direction:		N 37° 16′ 01.0532″ E		
Tangent Direction:		N 52° 43′ 58.9468″ W		

CIRCULAR CURVE NO. 64 – RAMP E

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12060)	505+95.77	634444.7527	615613.7866
PI	(12061)	506+50.81	634493.2201	615587.7141
CC	(12062)		634585.9280	615876.2242
PCC	(12063)	507+04.62	634547.8031	615580.6731
Radius:		298.0000		
Delta:		20° 55′ 37.8548″ Right		
Degree of Curvature(Arc):		19° 13′ 36.3779″		
Length:		108.8440		
Tangent:		55.0352		
Chord:		108.2400		
Middle Ordinate:		4.9556		
External:		5.0394		
Tangent Direction:		N 28° 16′ 39.0905″ W		
Radial Direction:		N 61° 43′ 20.9095″ E		
Chord Direction:		N 17° 48′ 50.1631″ W		
Radial Direction:		N 82° 38′ 58.7642″ E		
Tangent Direction:		N 7° 21′ 01.2358″ W		

CIRCULAR CURVE NO. 46 – RAMP F

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12104)	703+49.00	634244.9305	615723.8083
PI	(12105)	705+05.05	634298.0825	615577.0906
CC	(12106)		633775.2985	615553.6728
PCC	(12107)	706+51.50	634258.2613	615426.2082
Radius:		499.5000		
Delta:		34° 41′ 55.1229″ Left		
Degree of Curvature(Arc):		11° 28′ 14.2555″		
Length:		302.5000		
Tangent:		156.0488		
Chord:		297.8985		
Middle Ordinate:		22.7250		
External:		23.8082		
Tangent Direction:		N 70° 05′ 09.1042″ W		
Radial Direction:		N 19° 54′ 50.8958″ E		
Chord Direction:		N 87° 26′ 06.6656″ W		
Radial Direction:		N 14° 47′ 04.2271″ W		
Tangent Direction:		S 75° 12′ 55.7729″ W		

CIRCULAR CURVE NO. 62 – RAMP E

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12054)	503+63.94	634272.9892	615767.1025
PI	(12055)	504+51.73	634326.1471	615697.2393
CC	(12056)		634772.7660	616147.3751
PCC	(12057)	505+38.39	634396.4252	615644.6310
Radius:		628.0000		
Delta:		15° 54′ 55.7795″ Right		
Degree of Curvature(Arc):		9° 07′ 24.7144″		
Length:		174.4444		
Tangent:		87.7874		
Chord:		173.8841		
Middle Ordinate:		6.0474		
External:		6.1062		
Tangent Direction:		N 52° 43′ 58.9468″ W		
Radial Direction:		N 37° 16′ 01.0532″ E		
Chord Direction:		N 44° 46′ 31.0571″ W		
Radial Direction:		N 53° 10′ 56.8327″ E		
Tangent Direction:		N 36° 49′ 03.1673″ W		

CIRCULAR CURVE NO. 65 – RAMP E

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12063)	507+04.62	634547.8031	615580.6731
PI	(12064)	507+45.81	634588.6562	615575.4032
CC	(12065)		634590.1499	615908.9530
PCC	(12066)	507+86.58	634629.5549	615580.3070
Radius:		331.0000		
Delta:		14° 11′ 15.0949″ Right		
Degree of Curvature(Arc):		17° 18′ 35.6514″		
Length:		81.9619		
Tangent:		41.1916		
Chord:		81.7527		
Middle Ordinate:		2.5337		
External:		2.5532		
Tangent Direction:		N 7° 21′ 01.2358″ W		
Radial Direction:		N 82° 38′ 58.7642″ E		
Chord Direction:		N 0° 15′ 23.6883″ W		
Radial Direction:		S 83° 09′ 46.1409″ E		
Tangent Direction:		N 6° 50′ 13.8591″ E		

NOTES:
1. SEE SHEET HV-14 FOR BASELINES.

NOT FOR CONSTRUCTION

CIRCULAR CURVE NO. 66 – RAMP E

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12066)	507+86.58	634629.5549	615580.3070
PI	(12067)	509+23.60	634765.6056	615596.6196
CC	(12068)		634541.3975	616315.5588
PT	(12069)	510+57.56	634886.8110	615660.5348
Radius:		740.5181		
Delta:		20° 58′ 00.5742″ Right		
Degree of Curvature(Arc):		7° 44′ 14.1217″		
Length:		270.9853		
Tangent:		137.0252		
Chord:		269.4758		
Middle Ordinate:		12.3610		
External:		12.5708		
Tangent Direction:		N 6° 50′ 13.8591″ E		
Radial Direction:		S 83° 09′ 46.1409″ E		
Chord Direction:		N 17° 19′ 14.1462″ E		
Radial Direction:		S 62° 11′ 45.5666″ E		
Tangent Direction:		N 27° 48′ 14.4334″ E		

CIRCULAR CURVE NO. 67 – RAMP J

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12201)	902+02.82	636011.1361	616156.7124
PI	(12202)	902+67.07	635954.3010	616126.7415
CC	(12203)		636333.7679	615544.8905
PT	(12204)	903+30.96	635903.9590	616086.8144
Radius:		691.6771		
Delta:		10° 36′ 52.2580″ Right		
Degree of Curvature(Arc):		8° 17′ 00.9667″		
Length:		128.1389		
Tangent:		64.2533		
Chord:		127.9557		
Middle Ordinate:		2.9652		
External:		2.9780		
Tangent Direction:		S 27° 48′ 14.4301″ W		
Radial Direction:		N 62° 11′ 45.5699″ W		
Chord Direction:		S 33° 06′ 40.5591″ W		
Radial Direction:		N 51° 34′ 53.3119″ W		
Tangent Direction:		S 38° 25′ 06.6881″ W		

CIRCULAR CURVE NO. 68 – RAMP J

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12205)	906+68.61	635639.4154	615877.0005
PI	(12206)	907+56.25	635570.7438	615822.5359
CC	(12207)		634875.5580	616840.1087
PT	(12208)	908+43.61	635495.0393	615778.3656
Radius:		1229.2500		
Delta:		8° 09′ 24.5066″ Left		
Degree of Curvature(Arc):		4° 39′ 39.7280″		
Length:		174.9999		
Tangent:		87.6480		
Chord:		174.8522		
Middle Ordinate:		3.1129		
External:		3.1208		
Tangent Direction:		S 38° 25′ 06.6881″ W		
Radial Direction:		N 51° 34′ 53.3119″ W		
Chord Direction:		S 34° 20′ 24.4348″ W		
Radial Direction:		N 59° 44′ 17.8184″ W		
Tangent Direction:		S 30° 15′ 42.1816″ W		

CIRCULAR CURVE NO. 69 – RAMP K

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12231)	1002+21.19	635892.1574	616187.8045
PI	(12232)	1002+59.31	635925.8781	616205.5865
CC	(12233)		635425.7089	617072.3529
PT	(12234)	1002+97.40	635958.1471	616225.8840
Radius:		1000.0000		
Delta:		4° 21′ 58.8067″ Right		
Degree of Curvature(Arc):		5° 43′ 46.4806″		
Length:		76.2069		
Tangent:		38.1219		
Chord:		76.1885		
Middle Ordinate:		0.7258		
External:		0.7264		
Tangent Direction:		N 27° 48′ 14.4301″ E		
Radial Direction:		S 62° 11′ 45.5699″ E		
Chord Direction:		N 29° 59′ 13.8334″ E		
Radial Direction:		S 57° 49′ 46.7632″ E		
Tangent Direction:		N 32° 10′ 13.2368″ E		

CIRCULAR CURVE NO. 70 – RAMP K

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12235)	1009+69.07	636526.6961	616583.5076
PI	(12236)	1010+74.71	636616.1176	616639.7547
CC	(12237)		635734.3041	617843.2504
PT	(12238)	1011+80.00	636696.6972	616708.0691
Radius:		1488.2328		
Delta:		8° 07′ 13.9318″ Right		
Degree of Curvature(Arc):		3° 50′ 59.7137″		
Length:		210.9274		
Tangent:		105.6406		
Chord:		210.7509		
Middle Ordinate:		3.7353		
External:		3.7447		
Tangent Direction:		N 32° 10′ 13.2367″ E		
Radial Direction:		S 57° 49′ 46.7633″ E		
Chord Direction:		N 36° 13′ 50.2027″ E		
Radial Direction:		S 49° 42′ 32.8314″ E		
Tangent Direction:		N 40° 17′ 27.1685″ E		

NOTES:
1. SEE SHEET HV-14 FOR BASELINES.

NOT FOR CONSTRUCTION

CIRCULAR CURVE NO. 71 – RAMP L

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12261)	1100+83.76	637792.2573	616976.0563
PI	(12262)	1101+59.19	637726.4465	616939.1958
CC	(12263)		637303.5881	617848.5255
PT	(12264)	1102+34.33	637655.8510	616912.6244
Radius:		1000.0000		
Delta:		8° 37′ 38.5100″ Left		
Degree of Curvature(Arc):		5° 43′ 46.4806″		
Length:		150.5759		
Tangent:		75.4305		
Chord:		150.4337		
Middle Ordinate:		2.8328		
External:		2.8408		
Tangent Direction:		S 29° 15′ 11.3506″ W		
Radial Direction:		N 60° 44′ 48.6494″ W		
Chord Direction:		S 24° 56′ 22.0956″ W		
Radial Direction:		N 69° 22′ 27.1594″ W		
Tangent Direction:		S 20° 37′ 32.8406″ W		

CIRCULAR CURVE NO. 72 – RAMP L

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12265)	1109+66.43	636970.6793	616654.7332
PI	(12266)	1110+22.88	636917.8463	616634.8475
CC	(12267)		637287.7159	615812.4223
PT	(12668)	1110+79.18	636867.9123	616608.5158
Radius:		900.0000		
Delta:		7° 10′ 41.5895″ Right		
Degree of Curvature(Arc):		6° 21′ 58.3118″		
Length:		112.7552		
Tangent:		56.4515		
Chord:		112.6815		
Middle Ordinate:		1.7652		
External:		1.7687		
Tangent Direction:		S 20° 37′ 32.8406″ W		
Radial Direction:		N 69° 22′ 27.1594″ W		
Chord Direction:		S 24° 12′ 53.6353″ W		
Radial Direction:		N 62° 11′ 45.5699″ W		
Tangent Direction:		S 27° 48′ 14.4301″ W		

CIRCULAR CURVE NO. 73 – RAMP M

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12291)	1201+53.05	637178.3139	616953.3987
PI	(12292)	1203+07.23	637329.2145	616985.0254
CC	(12293)		636994.5180	617830.3452
PT	(12294)	1204+58.42	637460.8646	617065.2720
Radius:		896.0000		
Delta:		19° 31′ 37.6316″ Right		
Degree of Curvature(Arc):		6° 23′ 40.6257″		
Length:		305.3680		
Tangent:		154.1793		
Chord:		303.8923		
Middle Ordinate:		12.9777		
External:		13.1684		
Tangent Direction:		N 11° 50′ 13.4570″ E		
Radial Direction:		S 78° 09′ 46.5430″ E		
Chord Direction:		N 21° 36′ 02.2728″ E		
Radial Direction:		S 58° 38′ 08.9114″ E		
Tangent Direction:		N 31° 21′ 51.0886″ E		

CIRCULAR CURVE NO. 74 – RAMP M

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12295)	1206+29.59	637607.0292	617154.3660
PI	(12296)	1206+96.40	637664.0761	617189.1386
CC	(12297)		637221.8769	617786.2344
PT	(12298)	1207+62.85	637713.9725	617233.5664
Radius:		740.0000		
Delta:		10° 19′ 03.6296″ Right		
Degree of Curvature(Arc):		7° 44′ 33.6225″		
Length:		133.2573		
Tangent:		66.8093		
Chord:		133.0773		
Middle Ordinate:		2.9976		
External:		3.0097		
Tangent Direction:		N 31° 21′ 51.0886″ E		
Radial Direction:		S 58° 38′ 08.9114″ E		
Chord Direction:		N 36° 31′ 22.9034″ E		
Radial Direction:		S 48° 19′ 05.2818″ E		
Tangent Direction:		N 41° 40′ 54.7182″ E		

CIRCULAR CURVE NO. 75 – RAMP N

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12320)	1300+00.00	638177.1759	617509.5763
PI	(12321)	1301+36.70	638062.1541	617435.7120
CC	(12322)		638663.4928	616752.2812
PT	(12323)	1302+71.32	637974.2513	617331.0265
Radius:		900.0000		
Delta:		17° 16′ 21.8491″ Right		
Degree of Curvature(Arc):		6° 21′ 58.3118″		
Length:		271.3195		
Tangent:		136.6966		
Chord:		270.2932		
Middle Ordinate:		10.2049		
External:		10.3219		
Tangent Direction:		S 32° 42′ 27.3949″ W		
Radial Direction:		N 57° 17′ 32.6051″ W		
Chord Direction:		S 41° 20′ 38.3195″ W		
Radial Direction:		N 40° 01′ 10.7560″ W		
Tangent Direction:		S 49° 58′ 49.2440″ W		

CIRCULAR CURVE NO. 76 – RAMP N

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12324)	1306+44.69	637734.1554	617045.0906
PI	(12325)	1309+49.28	637538.2915	616811.8317
CC	(12326)		637573.7153	617179.8097
PT	(12327)	1310+50.40	637390.5219	617078.1708
Radius:		209.5000		
Delta:		110° 57′ 29.0557″ Left		
Degree of Curvature(Arc):		27° 20′ 55.7548″		
Length:		405.7143		
Tangent:		304.5856		
Chord:		345.2220		
Middle Ordinate:		90.7747		
External:		160.1791		
Tangent Direction:		S 49° 58′ 49.2440″ W		
Radial Direction:		N 40° 01′ 10.7560″ W		
Chord Direction:		S 5° 29′ 55.2839″ E		
Radial Direction:		S 29° 01′ 20.1883″ W		
Tangent Direction:		S 60° 58′ 39.8117″ E		

NOTES:
1. SEE SHEET HV-15 FOR BASELINES.

NOT FOR CONSTRUCTION

CIRCULAR CURVE NO. 77 – RAMP O

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12360)	1400+00.00	637910.5709	617477.0101
PI	(12361)	1401+19.81	637985.3808	617570.5952
CC	(12362)		638379.2343	617102.3708
PCC	(12363)	1402+36.51	638090.3954	617628.2720
Radius:		600.0000		
Delta:		22° 35′ 06.5976″ Left		
Degree of Curvature(Arc):		9° 32′ 57.4677″		
Length:		236.5113		
Tangent:		119.8111		
Chord:		234.9830		
Middle Ordinate:		11.6160		
External:		11.8453		
Tangent Direction:		N 51° 21′ 42.8990″ E		
Radial Direction:		S 38° 38′ 17.1010″ E		
Chord Direction:		N 40° 04′ 09.6003″ E		
Radial Direction:		S 61° 13′ 23.6985″ E		
Tangent Direction:		N 28° 46′ 36.3015″ E		

CIRCULAR CURVE NO. 78 – RAMP O

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12363)	1402+36.51	638090.3954	617628.2720
PI	(12364)	1404+97.76	638319.3803	617754.0366
CC	(12365)		638776.3877	616379.2565
PT	(12366)	1407+53.27	638578.0870	617790.3915
Radius:		1425.0000		
Delta:		20° 46′ 39.3658″ Left		
Degree of Curvature(Arc):		4° 01′ 14.7232″		
Length:		516.7585		
Tangent:		261.2485		
Chord:		513.9316		
Middle Ordinate:		23.3604		
External:		23.7497		
Tangent Direction:		N 28° 46′ 36.3015″ E		
Radial Direction:		S 61° 13′ 23.6985″ E		
Chord Direction:		N 18° 23′ 16.6186″ E		
Radial Direction:		S 82° 00′ 03.0643″ E		
Tangent Direction:		N 7° 59′ 56.9357″ E		

CIRCULAR CURVE NO. 79 – RAMP O

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12367)	1408+95.85	638719.2795	617810.2327
PI	(12368)	1409+28.68	638751.3933	617817.0580
CC	(12369)		639501.0179	614132.0780
PT	(12370)	1409+61.51	638783.6214	617823.3215
Radius:		3760.3107		
Delta:		1° 00′ 01.6892″ Left		
Degree of Curvature(Arc):		1° 31′ 25.3129″		
Length:		65.6606		
Tangent:		32.8311		
Chord:		65.6598		
Middle Ordinate:		0.1433		
External:		0.1433		
Tangent Direction:		N 11° 59′ 55.8434″ E		
Radial Direction:		S 78° 00′ 04.1566″ E		
Chord Direction:		N 11° 29′ 54.9988″ E		
Radial Direction:		S 79° 00′ 05.8458″ E		
Tangent Direction:		N 10° 59′ 54.1542″ E		

CIRCULAR CURVE NO. 80 – RAMP P

		STATION	NORTHING	EASTING
Element: Circular				
PC	(12390)	1500+00.00	638841.8536	617747.4293
PI	(12391)	1500+10.01	638832.0046	617745.6336
CC	(12392)		639501.0179	614132.0780
PCC	(12393)	1500+20.02	638822.1656	617743.7843
Radius:		3674.9507		
Delta:		0° 18′ 43.8108″ Right		
Degree of Curvature(Arc):		1° 33′ 32.7231″		
Length:		20.0226		
Tangent:		10.0113		
Chord:		20.0225		
Middle Ordinate:		0.0136		
External:		0.0136		
Tangent Direction:		S 10° 19′ 58.3796″ W		
Radial Direction:		N 79° 40′ 01.6204″ W		
Chord Direction:		S 10° 29′ 20.2849″ W		
Radial Direction:		N 79° 21′ 17.8097″ W		
Tangent Direction:		S 10° 38′ 42.1903″ W		

CIRCULAR CURVE NO. 81 – RAMP P

		STATION	NORTHING	EASTING
Element: Circular				
PCC	(12393)	1500+20.02	638822.1656	617743.7843
PI	(12394)	1502+86.79	638559.9901	617694.5061
CC	(12395)		638960.7088	617006.6915
PT	(12396)	1505+32.62	638387.8208	617490.7364
Radius:		750.0000		
Delta:		39° 09′ 35.2366″ Right		
Degree of Curvature(Arc):		7° 38′ 21.9742″		
Length:		512.6004		
Tangent:		266.7665		
Chord:		502.6814		
Middle Ordinate:		43.3687		
External:		46.0304		
Tangent Direction:		S 10° 38′ 42.1903″ W		
Radial Direction:		N 79° 21′ 17.8097″ W		
Chord Direction:		S 30° 13′ 29.8086″ W		
Radial Direction:		N 40° 11′ 42.5731″ W		
Tangent Direction:		S 49° 48′ 17.4269″ W		

NOTES:
1. SEE SHEET HV-15 FOR BASELINES.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

NOT TO SCALE

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

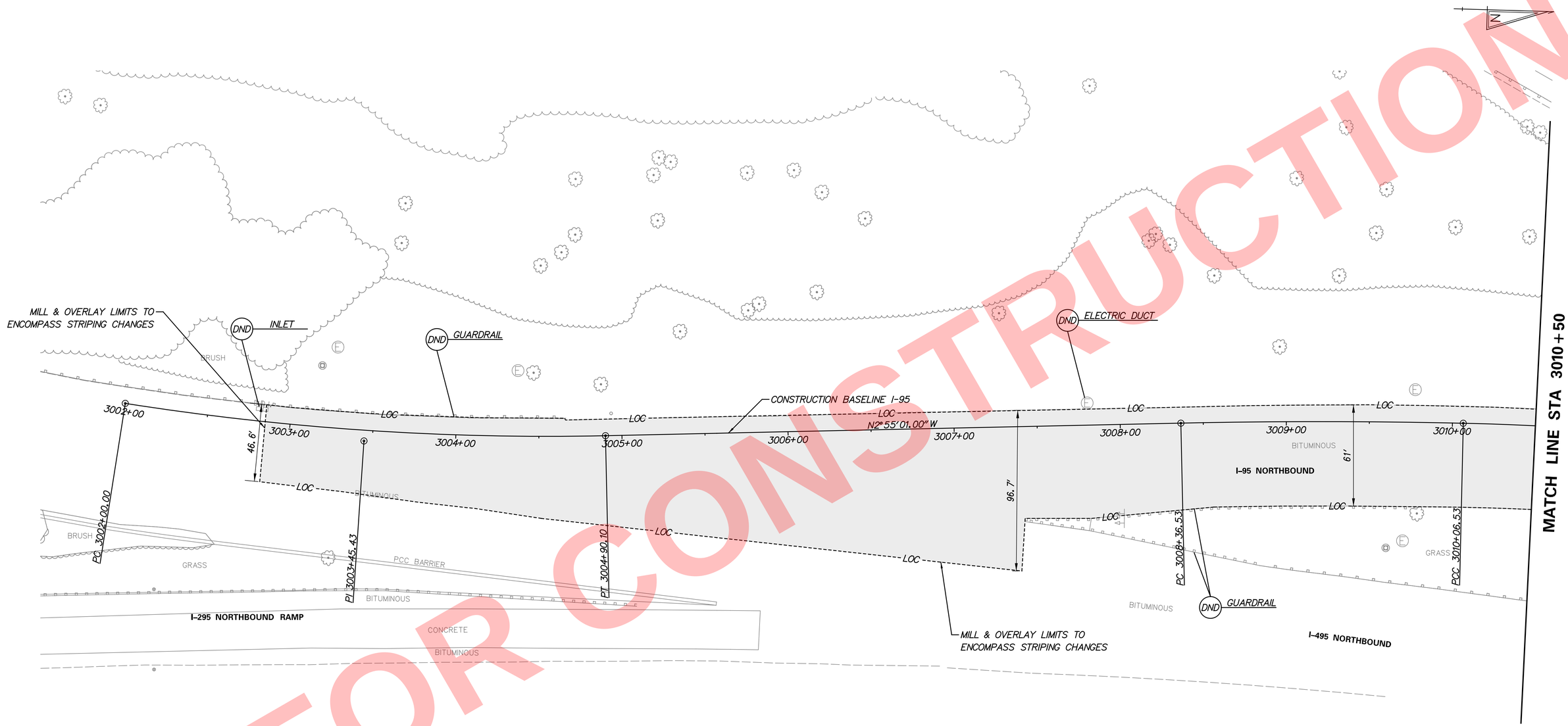
CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: KRK
COUNTY	
NEW CASTLE	CHECKED BY: BRT

HORIZONTAL AND VERTICAL CONTROL I-95 RAMPS

HV-26

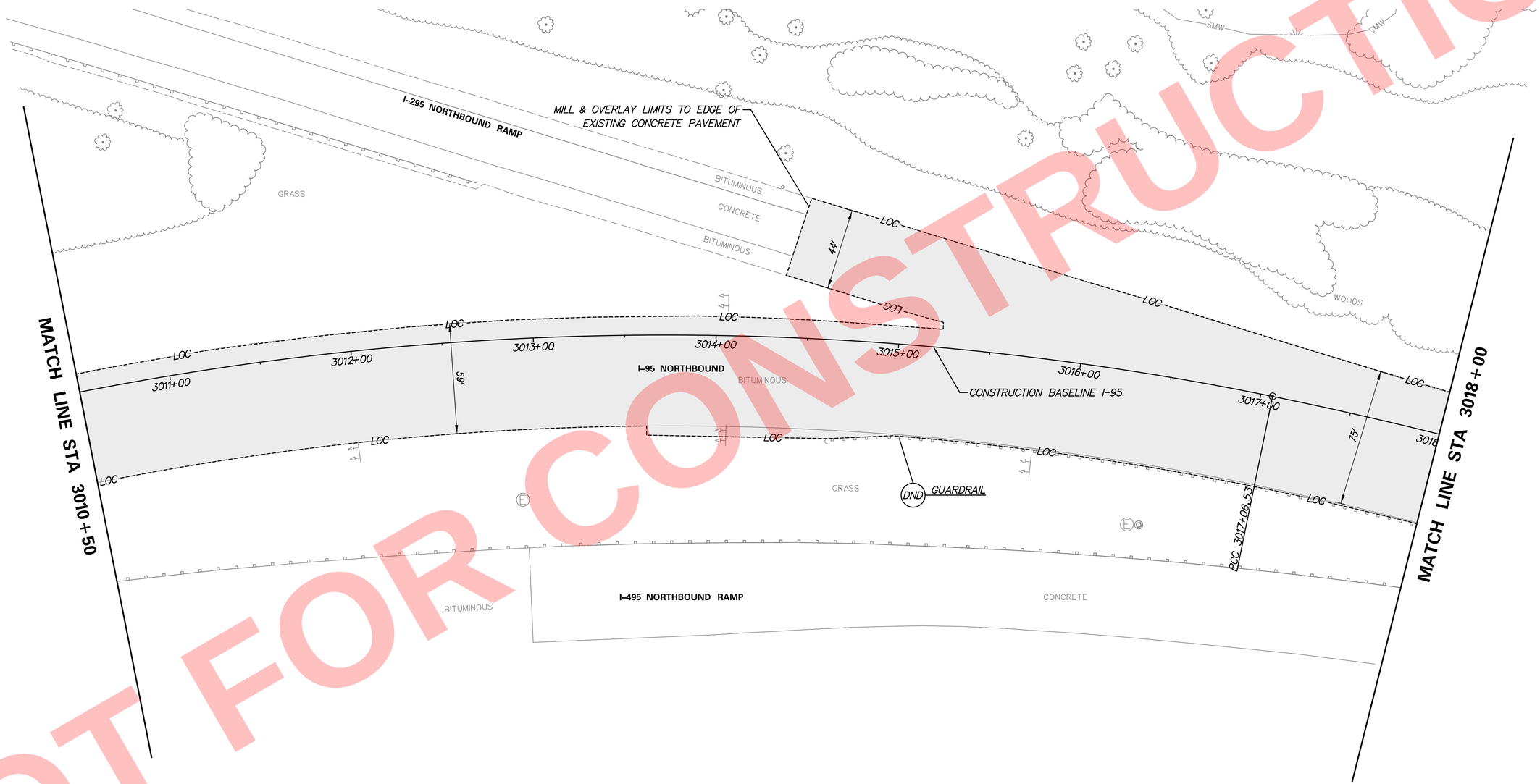
SECTION: WRA

SHEET NO. 51



NOT FOR CONSTRUCTION

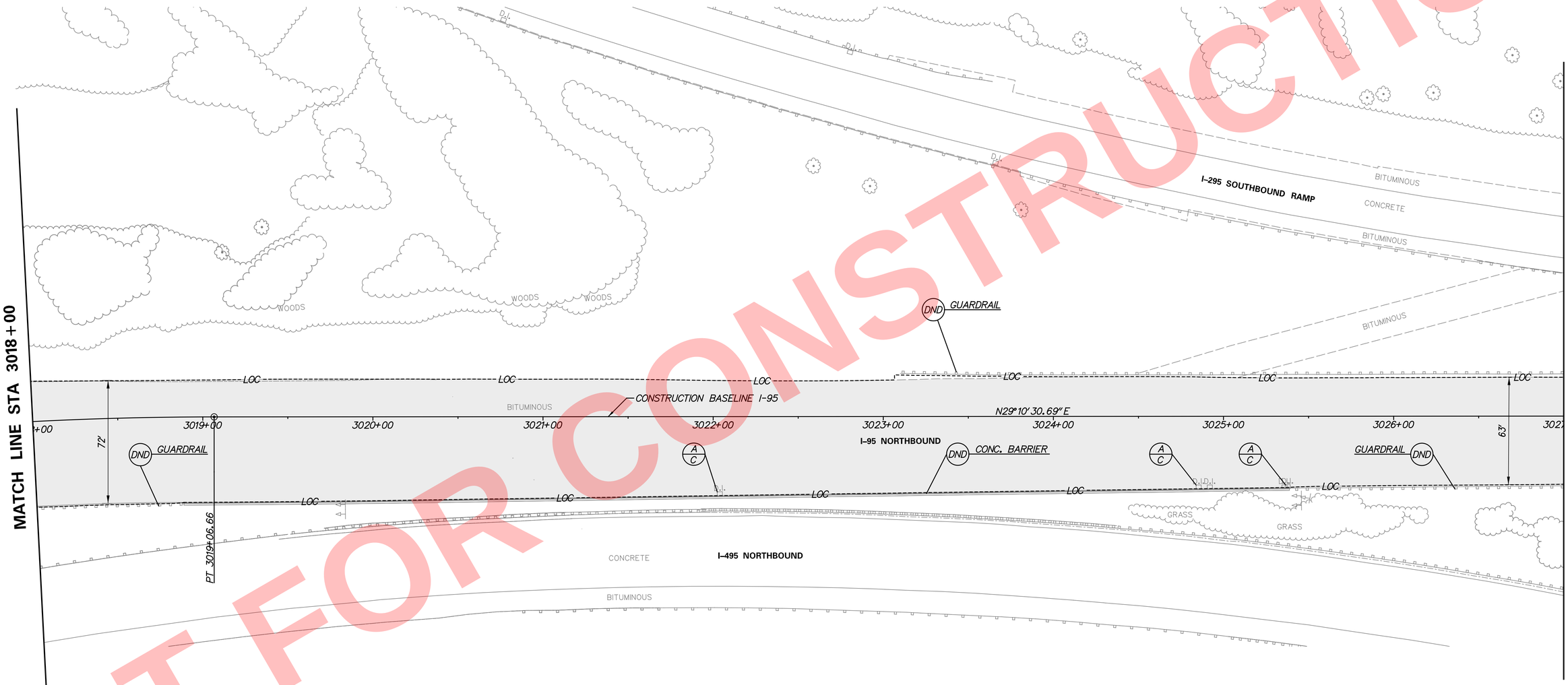
DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CONSTRUCTION PLAN	CP-01
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-52
					CHECKED BY: PAH		TOTAL SHTS. 1-178



NOT FOR CONSTRUCTION

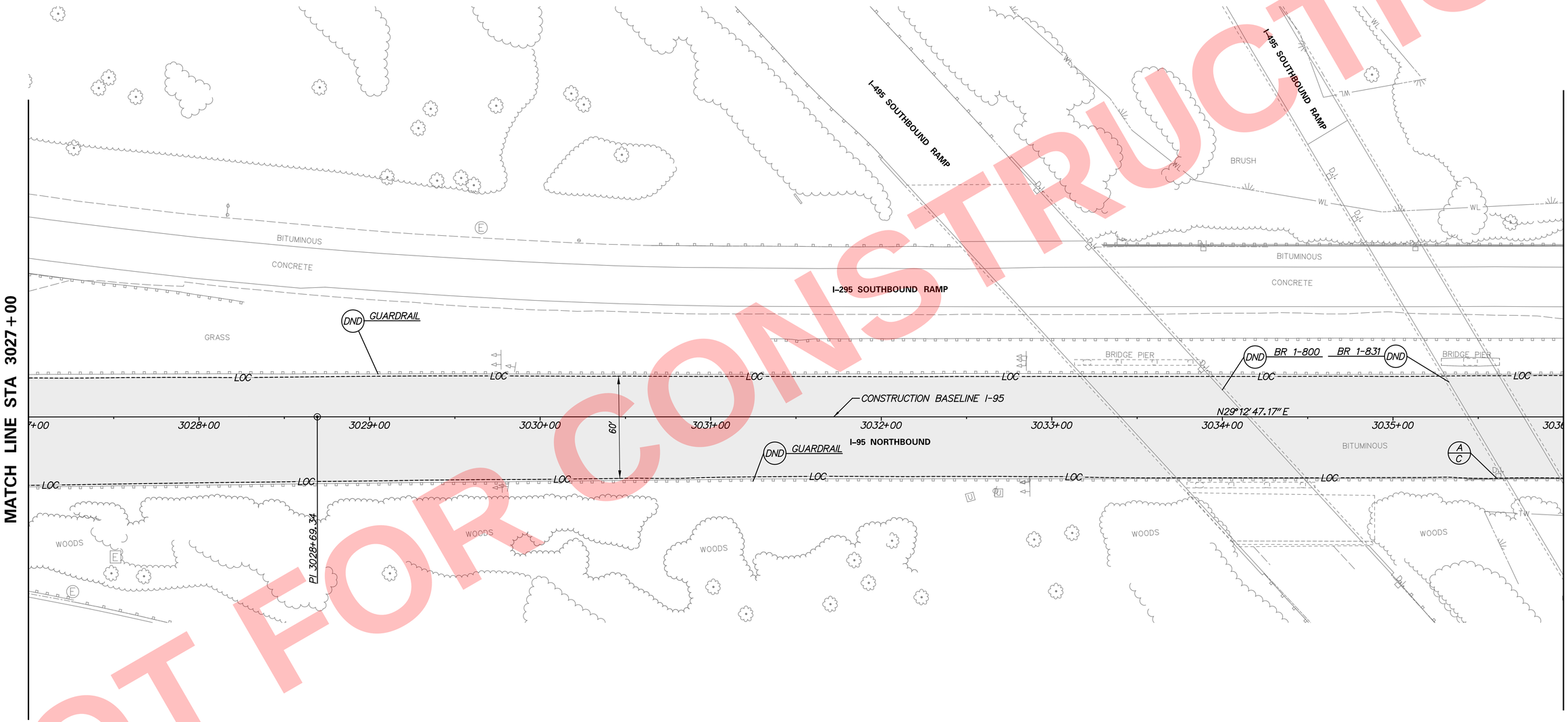
CP-02

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CONSTRUCTION PLAN	SHEET NO. 1-53
				COUNTY NEW CASTLE	DESIGNED BY: DHW		TOTAL SHTS. 1-178
					CHECKED BY: PAH		



NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CONSTRUCTION PLAN	CP-03
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-54
					CHECKED BY: PAH		TOTAL SHTS. 1-178



NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CONSTRUCTION PLAN	CP-04
				COUNTY NEW CASTLE	DESIGNED BY: DHW		SHEET NO. 1-55
					CHECKED BY: PAH		TOTAL SHTS. 1-178

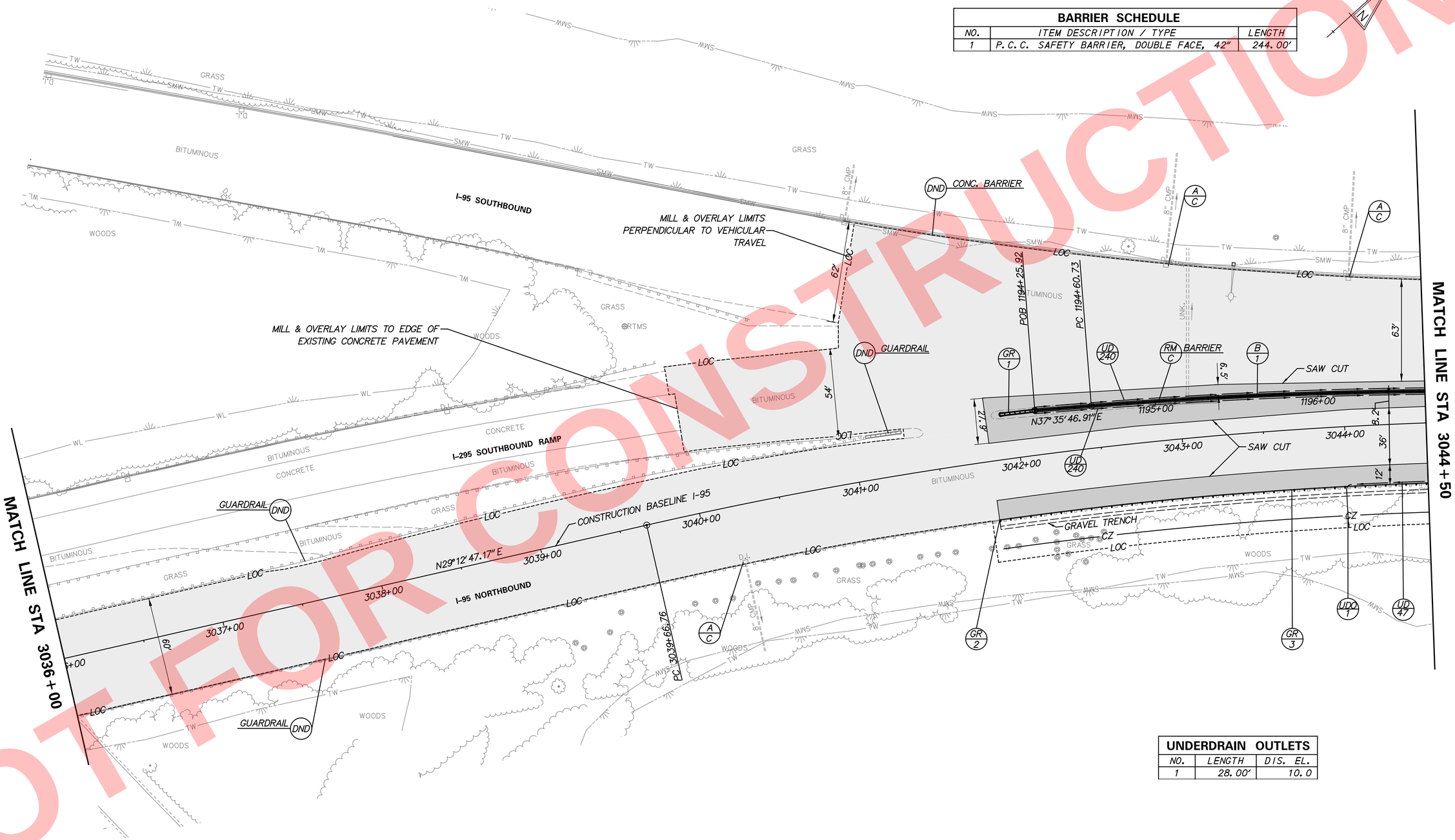
GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
1	PERMANENT IMPACT ATTENUATOR, TYPE 4	3041+89	-27.68	N/A
2	GUARDRAIL 27" TO 31" TRANSITION	3042+82	36.50	*
3	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	3042+82	36.50	265.00'

*TO BE PAID FOR UNDER ITEM 720021

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
1	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42"	244.00'



UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
1	28.00'	10.0

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	
NEW CASTLE	CHECKED BY: PAH

CONSTRUCTION PLAN

CP-05

SHEET NO. 1-56

TOTAL SHTS. 1-178

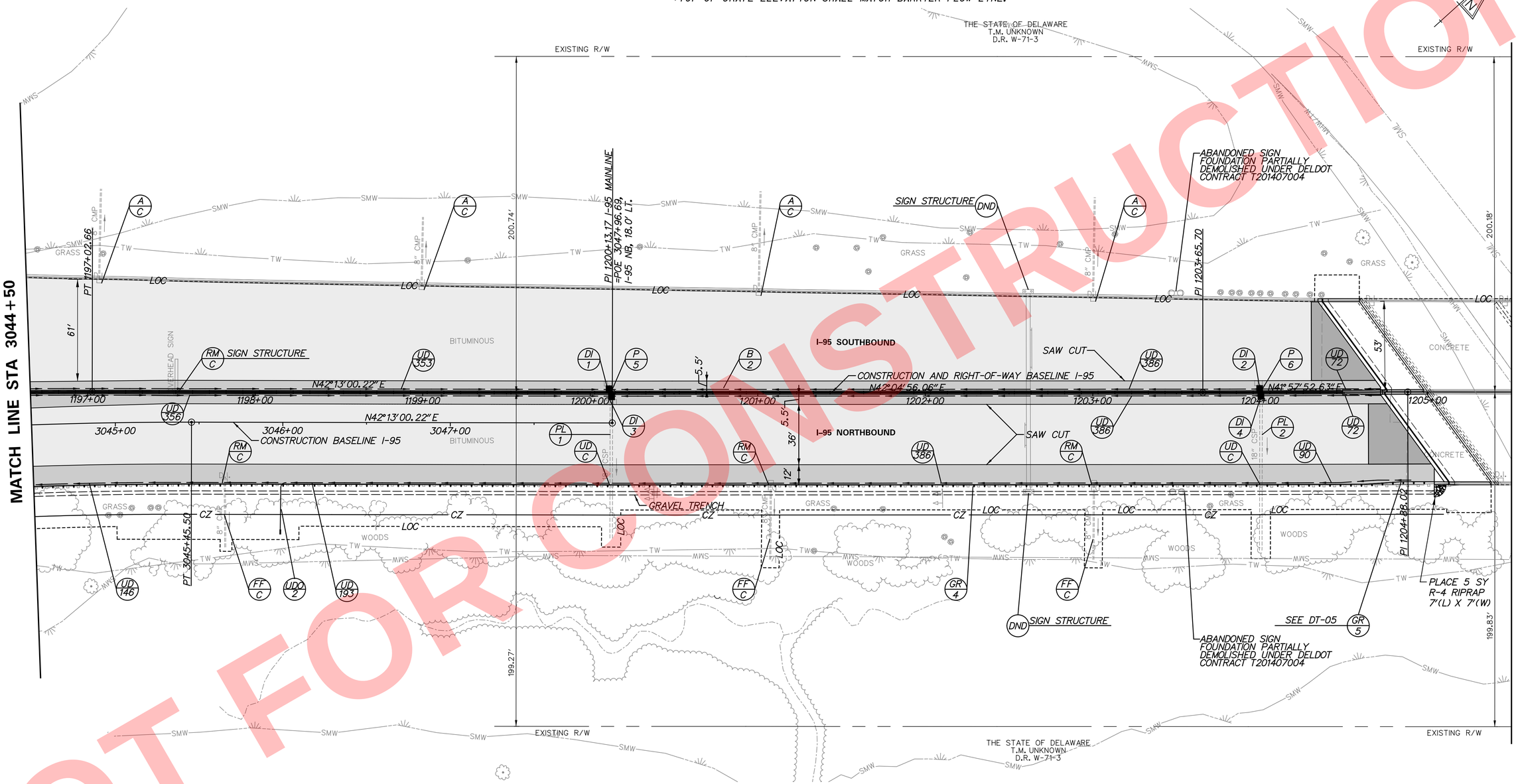
GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
4	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1196+67.26	44.34'	834.00'
5	GR TO BARRIER CONNECTION, APPROACH TYPE 1-31	1204+62.52	53.62'	27.00'

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.*	INV. EL.
1	1200+11	2' LT.	48" x 30"	1	20.73	14.75
3	1200+13	2' RT.	48" x 30"	1	20.82	14.65
2	1204+00	2' LT.	48" x 30"	1	26.54	19.68
4	1204+00	2' RT.	48" x 30"	1	26.45	19.58

*TOP OF GRATE ELEVATION SHALL MATCH BARRIER FLOW LINE.

BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
2	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42"*	804.00'

* FOR BARRIER TRANSITION AT BRIDGE PARAPETS, SEE PN-02.



DRAINAGE PIPE LINING SCHEDULE			
NO.	SIZE / TYPE	CLASS	LENGTH
1	18" CSP	-	85'
2	18" CSP	-	91'

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
2	32.00'	13.0

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
5	18" RCP	IV	2'	0.0050	14.75	14.75
6	18" RCP	IV	2'	0.0050	19.68	19.68

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-744
T201407404	DESIGNED BY: DHW	
COUNTY		
NEW CASTLE	CHECKED BY: PAH	

CONSTRUCTION PLAN

CP-06

SHEET NO. 1-57

TOTAL SHTS. 1-178

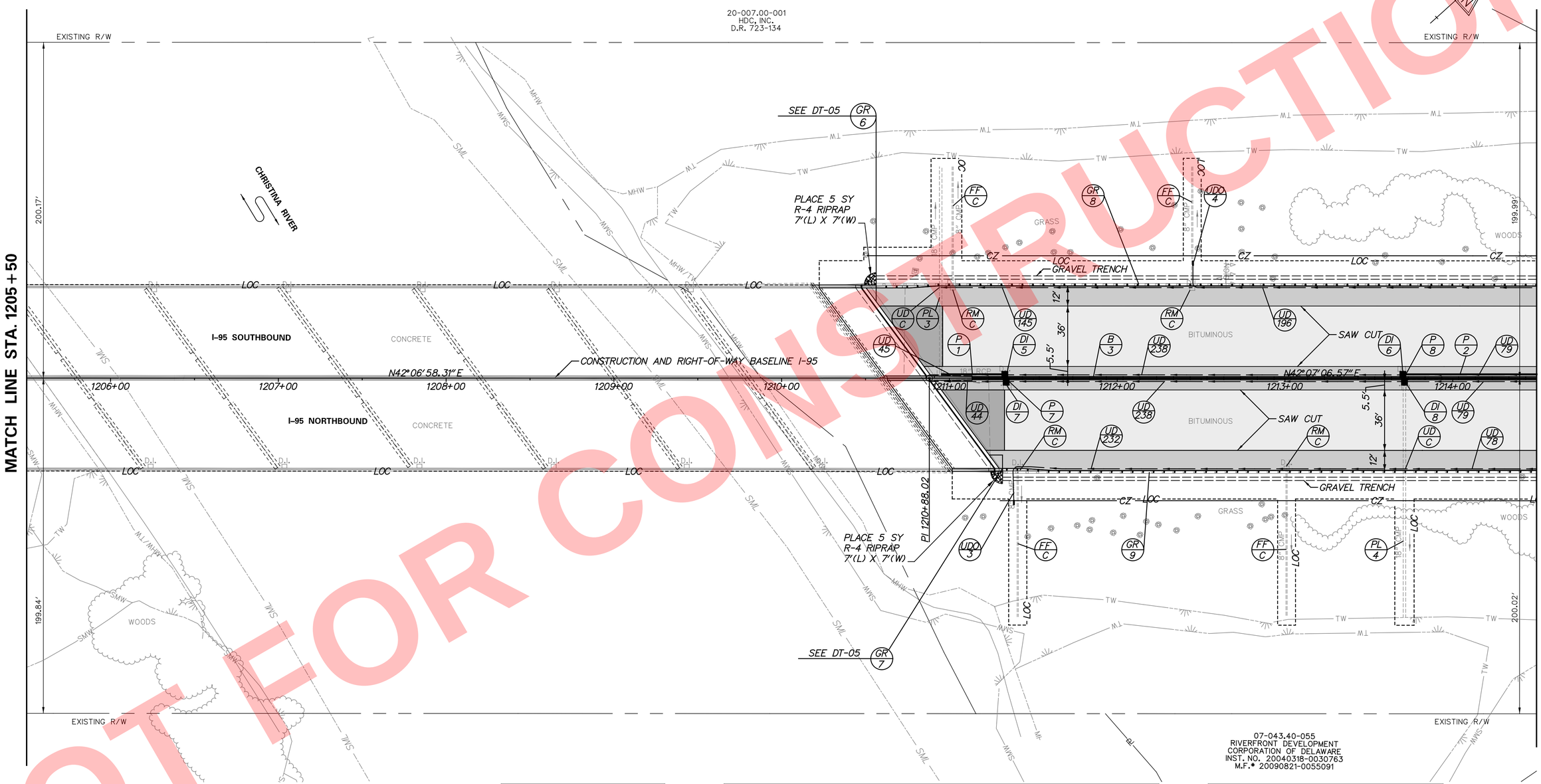
GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
6	GR TO BARRIER CONNECTION, APPROACH TYPE 1-31	1210+56.34	53.79' LT.	27.00'
7	GR TO BARRIER CONNECTION EXIT TYPE 31	1211+31.65	53.79' RT.	24.00'
8	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1210+76.09	53.79' LT.	374.00'
9	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1211+43.15	53.79' RT.	307.00'

BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
3	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42"*	364.00'

* FOR BARRIER TRANSITION AT BRIDGE PARAPETS, SEE PN-02.

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.*	INV. EL.
5	1211+33	2' LT.	48" x 30"	1	37.58	32.19
7	1211+34	2' RT.	48" x 30"	1	37.56	32.29
6	1213+70	2' LT.	48" x 30"	1	41.10	35.58
8	1213+71	2' RT.	48" x 30"	1	40.95	35.55

*TOP OF GRATE ELEVATION SHALL MATCH BARRIER FLOW LINE.



UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
3	23.00'	33.7
4	17.00'	35.5

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
1	18" RCP	IV	36'	0.0050	32.19	*
7	18" RCP	IV	2'	0.0050	32.29	32.29
2	18" RCP	IV	248'	0.0150	39.41	35.68
8	18" RCP	IV	2'	0.0050	35.58	35.58

*CONTRACTOR SHALL VERIFY ELEVATION AND CONNECT TO EXISTING STRUCTURE.

DRAINAGE PIPE LINING SCHEDULE			
NO.	SIZE / TYPE	CLASS	LENGTH
3	18" CMP	-	125'
4	18" CMP	-	140'

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-744
T201407404	DESIGNED BY: DHW	
COUNTY		
NEW CASTLE	CHECKED BY: PAH	

CONSTRUCTION PLAN

CP-07

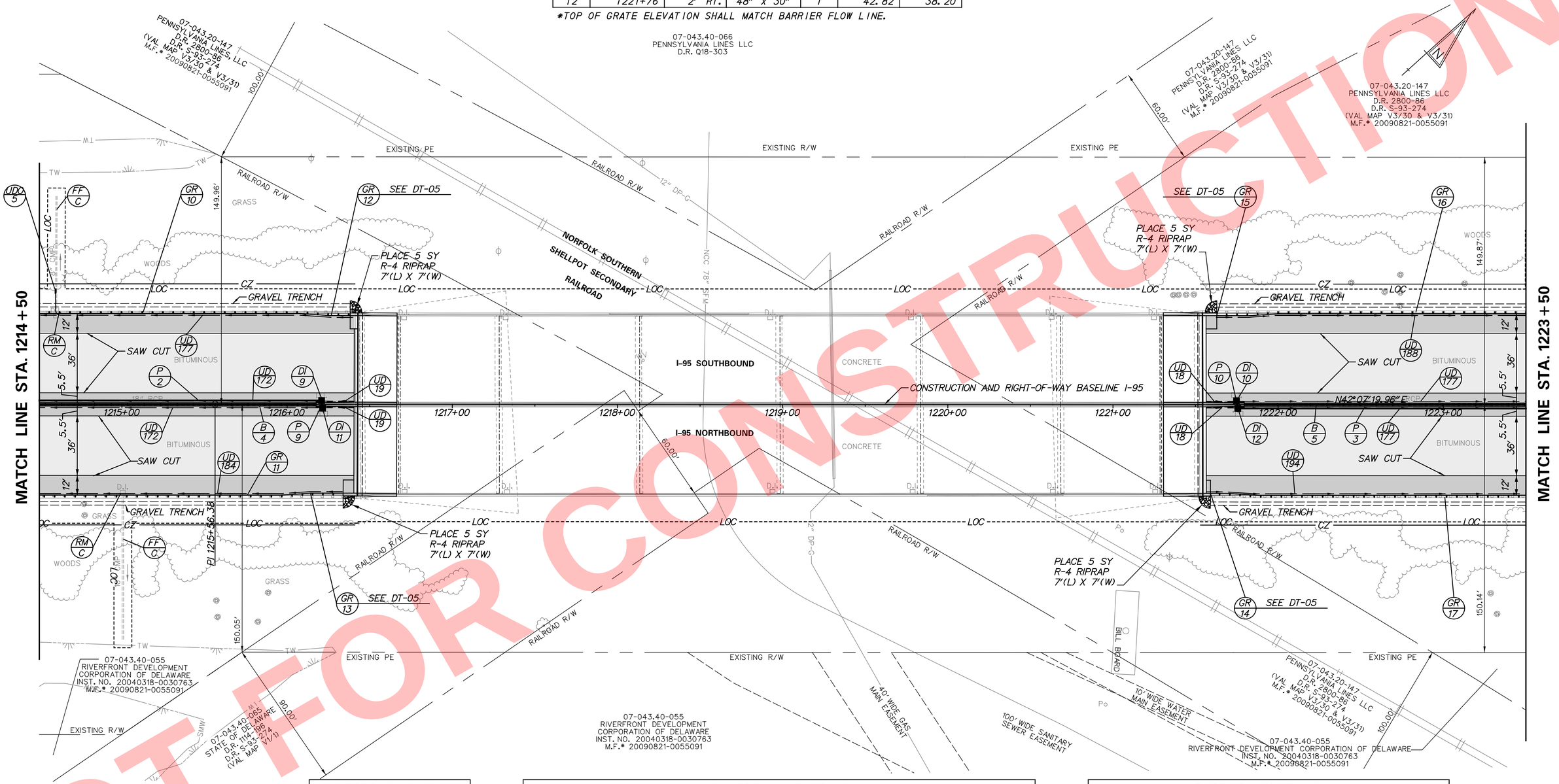
SHEET NO. 1-58

TOTAL SHTS. 1-178

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.*	INV. EL.
9	1216+21	2' LT.	48" x 30"	1	44.24	39.41
10	1221+75	2' LT.	48" x 30"	1	42.84	38.10
11	1216+21	2' RT.	48" x 30"	1	44.11	39.51
12	1221+76	2' RT.	48" x 30"	1	42.82	38.20

*TOP OF GRATE ELEVATION SHALL MATCH BARRIER FLOW LINE.

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
3	18" RCP	IV	248'	0.0187	38.10	33.24
9	18" RCP	IV	2'	0.0050	39.51	39.51
10	18" RCP	IV	2'	0.0050	38.20	38.20



UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
5	18.00'	38.7

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
10	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1214+50.00	55.00' LT.	177.00'
11	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1214+50.00	55.00' RT.	165.00'
12	GR TO BARRIER CONNECTION EXIT TYPE 31	1216+26.67	53.75' LT.	14.00'
13	GR TO BARRIER CONNECTION, APPROACH TYPE 1-31	1216+14.17	53.75' RT.	27.00'
14	GR TO BARRIER CONNECTION EXIT TYPE 31	1221+59.02	53.79' RT.	14.00'
15	GR TO BARRIER CONNECTION, APPROACH TYPE 1-31	1221+62.84	53.83' LT.	27.00'
16	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1221+82.59	53.83' LT.	168.00'
17	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1221+70.52	53.79' RT.	180.00'

BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
4	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42"*	193.00'
5	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42"*	199.00'

* FOR BARRIER TRANSITION AT BRIDGE PARAPETS, SEE PN-02.

NOT FOR CONSTRUCTION

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95
FROM I-495 TO NORTH OF
BRANDYWINE RIVER BRIDGE

CONTRACT T201407404
COUNTY NEW CASTLE
BRIDGE NO. 1-745
DESIGNED BY: DHW
CHECKED BY: PAH

CONSTRUCTION PLAN

CP-08
SHEET NO. 1-59
TOTAL SHTS. 1-178

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
18	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1223+49.60	54.97′ LT.	233.00′
19	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1223+49.75	55.00′ RT.	238.00′
20	GR TO BARRIER CONNECTION EXIT TYPE 31	1225+82.51	53.75′ LT.	12.00′
21	GR TO BARRIER CONNECTION, APPROACH TYPE 1-31	1225+80.05	53.75′ RT.	20.00′
22	GR TO BARRIER CONNECTION, APPROACH TYPE 1-31	1228+68.20	53.75′ LT.	20.00′
23	GR TO BARRIER CONNECTION EXIT TYPE 1-31	1228+73.99	53.75′ RT.	12.00′
24	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1228+87.95	53.75′ LT.	370.00′
25	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1228+85.49	53.75′ RT.	363.00′

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.*	INV. EL.
13	1224+31	2′ LT.	48″ x 30″	1	38.34	33.24
16	1224+32	2′ RT.	48″ x 30″	1	38.29	33.14
14	1225+85	2′ LT.	48″ x 30″	1	34.24	29.36
17	1225+86	2′ RT.	48″ x 30″	1	34.22	28.49
15	1231+51	2′ LT.	48″ x 30″	1	18.77	13.58
18	1231+52	2′ RT.	48″ x 30″	1	18.85	13.48

*TOP OF GRATE ELEVATION SHALL MATCH BARRIER FLOW LINE.

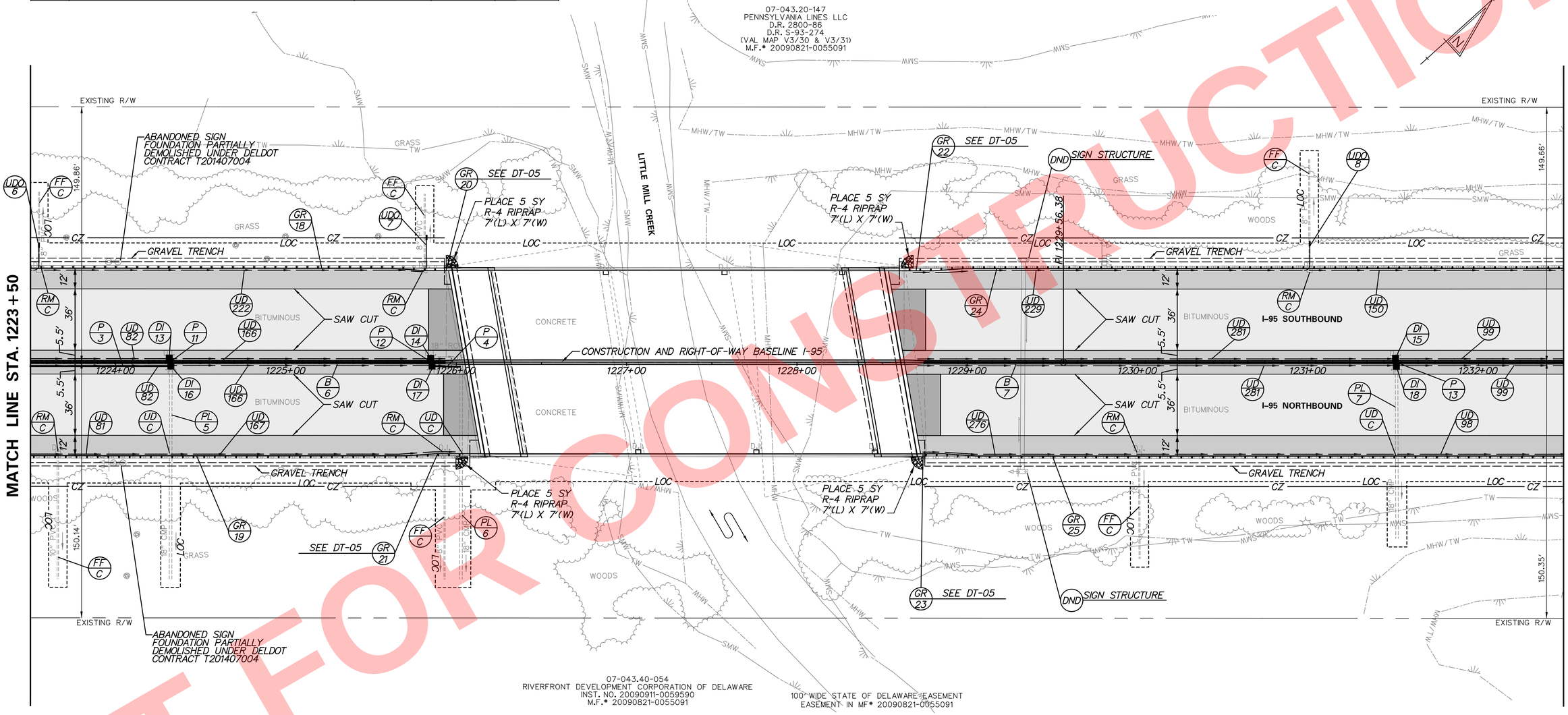
BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
6	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42″*	258.00′
7	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42″*	390.00′

* FOR BARRIER TRANSITION AT BRIDGE PARAPETS, SEE PN-02.

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
6	18.00′	36.0
7	22.00′	30.5
8	19.00′	16.0



DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
4	18″ RCP	IV	15′	0.0050	28.49	*
11	18″ RCP	IV	2′	0.0050	33.24	33.24
12	18″ RCP	IV	2′	0.0050	29.36	29.36
13	18″ RCP	IV	2′	0.0050	13.58	13.58

*CONTRACTOR SHALL VERIFY ELEVATION AND CONNECT TO EXISTING STRUCTURE.

DRAINAGE PIPE LINING SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH
5	18″ CMP	-	124′
6	18″ CMP	-	127′
7	18″ CMP	-	100′

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-746
T201407404	DESIGNED BY: DHW	
COUNTY		
NEW CASTLE	CHECKED BY: PAH	

CONSTRUCTION PLAN

CP-09

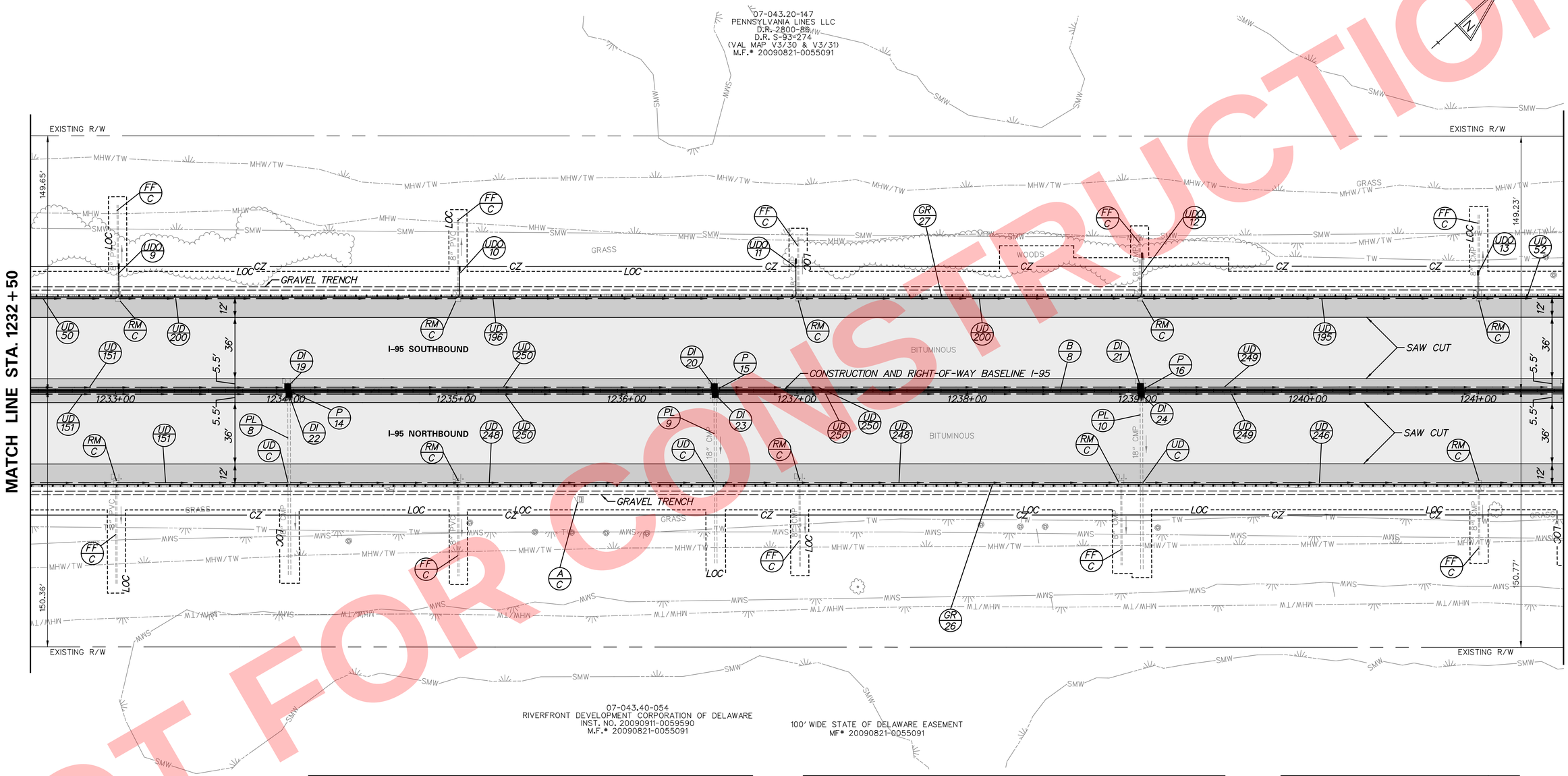
SHEET NO. 1-60

TOTAL SHTS. 1-178

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
26	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1232+50.00	55.00′ RT.	900.00′
27	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1232+50.00	55.00′ LT.	900.00′

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
9	22.00′	13.4
10	20.00′	12.4
11	25.00′	11.4
12	28.00′	10.4
13	18.00′	9.4

BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
8	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42″	900.00′



DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
14	18″ RCP	IV	2′	0.0050	11.25	11.25
15	18″ RCP	IV	2′	0.0050	9.82	9.82
16	18″ RCP	IV	2′	0.0050	8.51	8.51

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.*	INV. EL.
19	1234+01	2′ LT.	48″ x 30″	1	16.58	11.25
22	1234+02	2′ RT.	48″ x 30″	1	16.58	11.15
20	1236+51	2′ LT.	48″ x 30″	1	15.37	9.82
23	1236+52	2′ RT.	48″ x 30″	1	15.39	9.72
21	1239+02	2′ LT.	48″ x 30″	1	14.11	8.51
24	1329+02	2′ RT.	48″ x 30″	1	14.14	8.41

*TOP OF GRATE ELEVATION SHALL MATCH BARRIER FLOW LINE.

DRAINAGE PIPE LINING SCHEDULE			
NO.	SIZE / TYPE	CLASS	LENGTH
8	18″ CMP	-	105′
9	18″ CMP	-	99′
10	18″ CMP	-	101′

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT T201407404 | COUNTY NEW CASTLE | BRIDGE NO. | DESIGNED BY: DHW | CHECKED BY: PAH

CONSTRUCTION PLAN

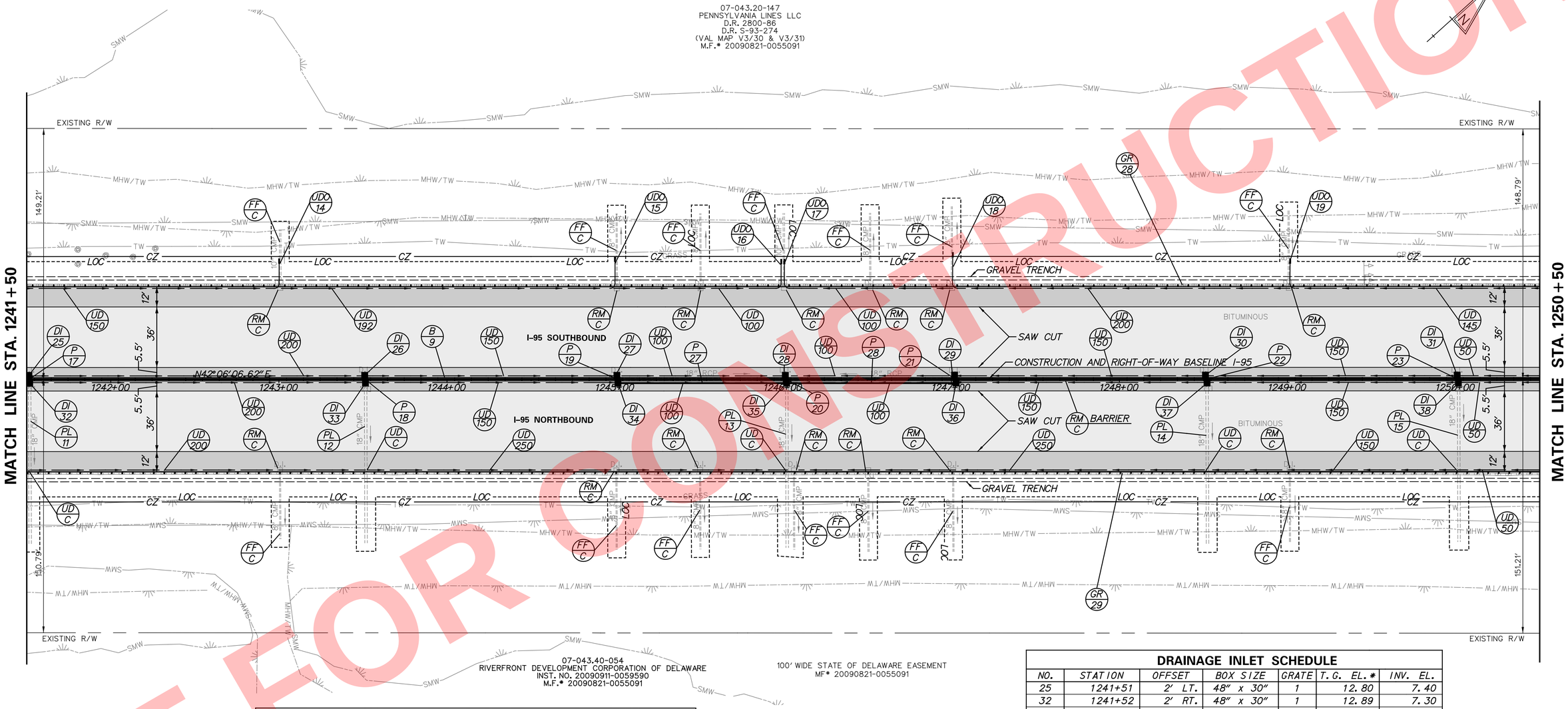
CP-10

SHEET NO. 1-61 | TOTAL SHTS. 1-178

BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
9	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42"	900.00'

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
28	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1241+50.00	55.00' LT.	900.00'
29	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1241+50.00	55.00' RT.	900.00'

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
14	19.00'	8.3
15	20.00'	7.5
16	19.00'	7.3
17	19.00'	7.3
18	23.00'	7.4
19	19.00'	8.3



DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
17	18" RCP	IV	2'	0.0050	7.40	7.40
18	18" RCP	IV	2'	0.0050	6.51	6.51
27	18" RCP	IV	98'	0.0160	5.77	4.20
19	18" RCP	IV	2'	0.0050	5.87	5.87
20	18" RCP	IV	2'	0.0050	4.20	4.20
21	18" RCP	IV	2'	0.0050	6.30	6.30
28	18" RCP	IV	98'	0.0204	6.20	4.20
22	18" RCP	IV	2'	0.0050	6.17	6.17
23	18" RCP	IV	2'	0.0050	6.90	6.90

DRAINAGE PIPE LINING SCHEDULE			
NO.	SIZE / TYPE	CLASS	LENGTH
11	18" CMP	-	94'
12	18" CMP	-	94'
13	18" CMP	-	97'
14	18" CMP	-	95'
15	18" CMP	-	93'

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.*	INV. EL.
25	1241+51	2' LT.	48" x 30"	1	12.80	7.40
32	1241+52	2' RT.	48" x 30"	1	12.89	7.30
26	1243+51	2' LT.	48" x 30"	1	11.90	6.51
33	1243+51	2' RT.	48" x 30"	1	11.86	6.41
27	1245+01	2' LT.	48" x 30"	1	11.28	5.87
34	1245+02	2' RT.	48" x 30"	1	11.22	5.77
28	1246+01	2' LT.	48" x 30"	1	11.14	4.20
35	1246+02	2' RT.	48" x 30"	1	11.18	4.10
29	1247+02	2' LT.	48" x 30"	1	11.22	6.30
36	1247+03	2' RT.	48" x 30"	1	11.30	6.20
30	1248+51	2' LT.	48" x 30"	1	11.80	6.17
37	1248+52	2' RT.	48" x 30"	1	11.87	6.07
31	1250+01	2' LT.	48" x 30"	1	12.52	6.90
38	1250+02	2' RT.	48" x 30"	1	12.61	6.80

*TOP OF GRATE ELEVATION SHALL MATCH BARRIER FLOW LINE.

NOT FOR CONSTRUCTION

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95
FROM I-495 TO NORTH OF
BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	CHECKED BY: PAH
NEW CASTLE	

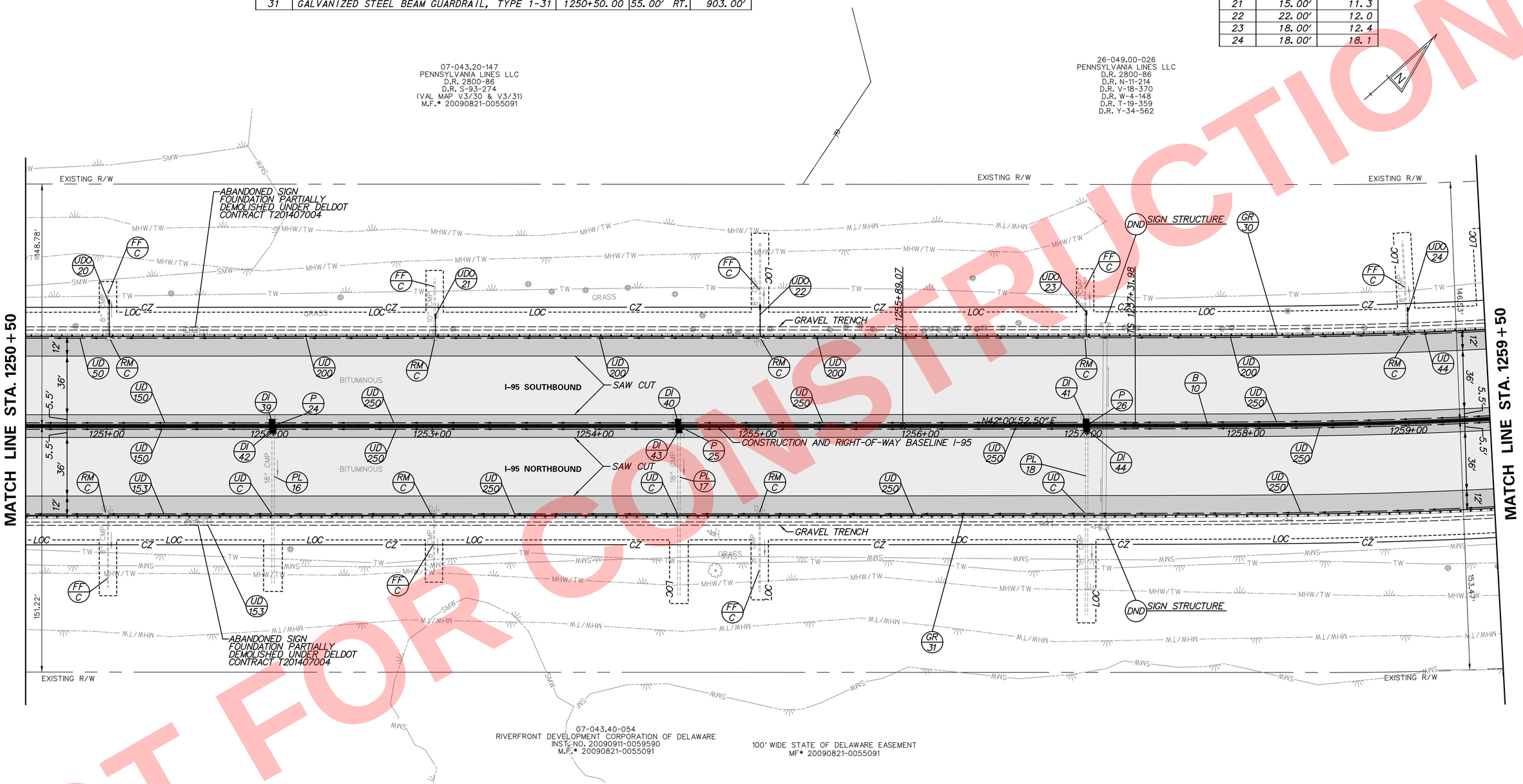
CONSTRUCTION PLAN

CP-11
SHEET NO.
1-62
TOTAL SHTS.
1-178

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
30	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1250+50.00	55.00' LT.	897.00'
31	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1250+50.00	55.00' RT.	903.00'

BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
10	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42"	900.00'

UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
20	25.00'	9.3
21	15.00'	11.3
22	22.00'	12.0
23	18.00'	12.4
24	18.00'	18.1



DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
24	18" RCP	IV	2'	0.0050	7.76	7.76
25	18" RCP	IV	2'	0.0050	8.92	8.92
26	18" RCP	IV	2'	0.0050	10.08	10.08

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.*	INV. EL.
39	1251+01	2' LT.	48" x 30"	1	13.47	7.76
42	1252+02	2' RT.	48" x 30"	1	13.53	7.66
40	1254+51	2' LT.	48" x 30"	1	14.71	8.92
43	1254+52	2' RT.	48" x 30"	1	14.77	8.82
41	1257+02	2' LT.	48" x 30"	1	16.42	10.08
44	1257+02	2' RT.	48" x 30"	1	16.40	9.98

*TOP OF GRATE ELEVATION SHALL MATCH BARRIER FLOW LINE.

DRAINAGE PIPE LINING SCHEDULE			
NO.	SIZE / TYPE	CLASS	LENGTH
16	18" CMP	-	94'
17	18" CMP	-	102'
18	18" CMP	-	114'

CP-12

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT T201407404 | COUNTY NEW CASTLE | BRIDGE NO. | DESIGNED BY: DHW | CHECKED BY: PAH

CONSTRUCTION PLAN

SHEET NO. 1-63 | TOTAL SHTS. 1-178

NOT FOR CONSTRUCTION

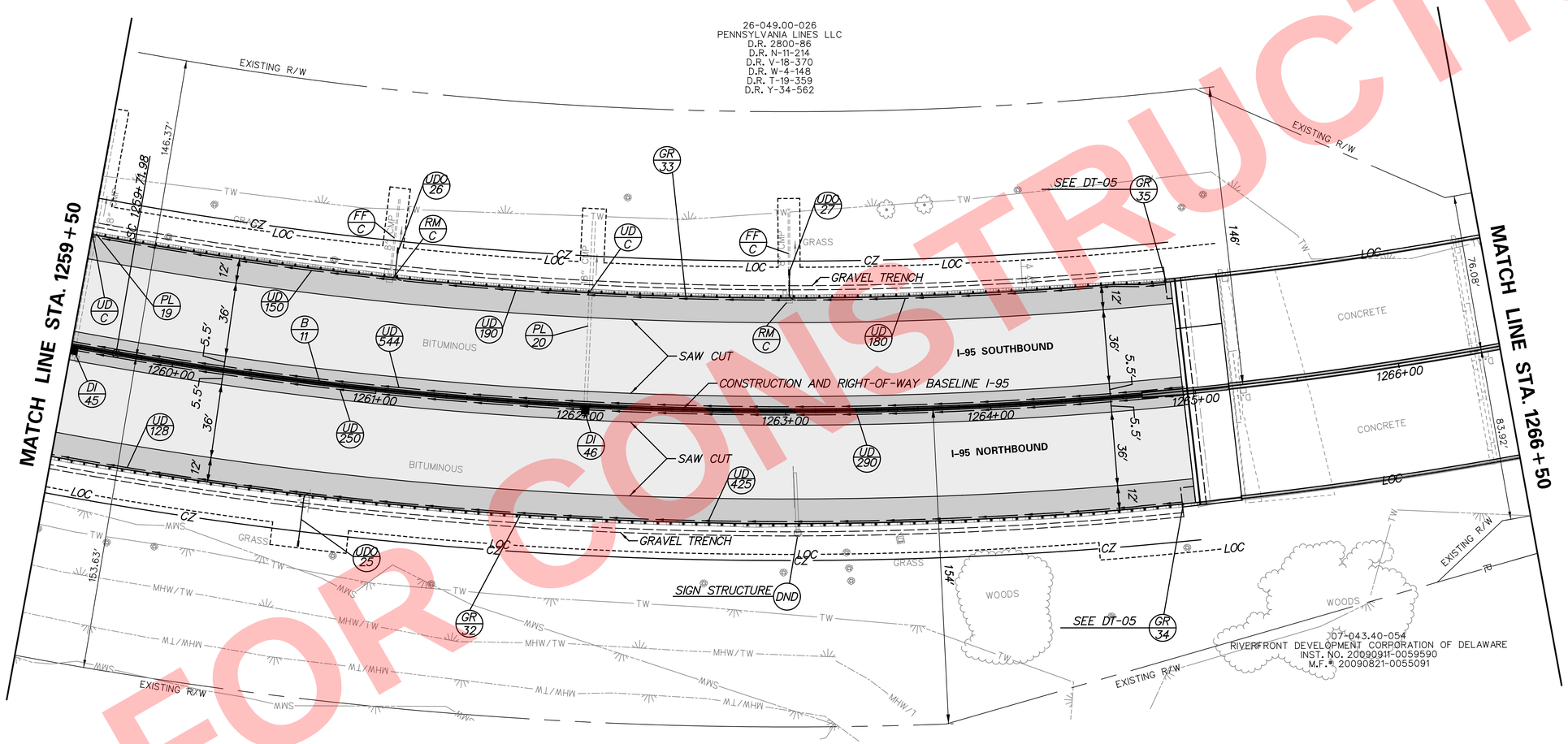
BARRIER SCHEDULE		
NO.	ITEM DESCRIPTION / TYPE	LENGTH
11	P.C.C. SAFETY BARRIER, DOUBLE FACE, 42"*	548.00'

* FOR BARRIER TRANSITION AT BRIDGE PARAPETS, SEE PN-02.

DRAINAGE INLET SCHEDULE						
NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.*	INV. EL.
45	1259+52	2' RT.	48" x 30"	1	18.63	12.83
46	1262+02	2' RT.	48" x 30"	1	20.79	15.48

*TOP OF GRATE ELEVATION SHALL MATCH BARRIER FLOW LINE.

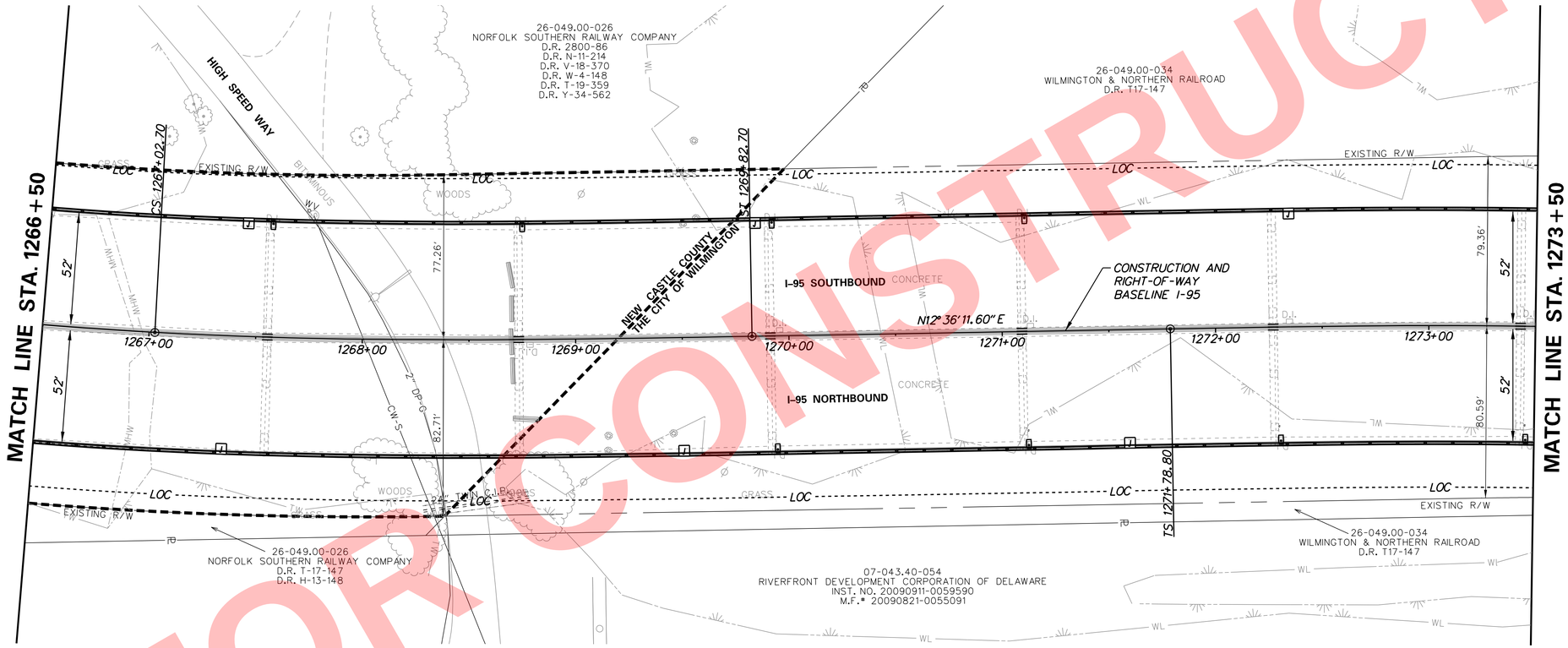
DRAINAGE PIPE LINING SCHEDULE			
NO.	SIZE / TYPE	CLASS	LENGTH
19	18" CMP	-	114'
20	18" CMP	-	94'



UNDERDRAIN OUTLETS		
NO.	LENGTH	DIS. EL.
25	28.00'	18.1
26	17.00'	13.2
27	17.00'	16.1

GUARDRAIL SCHEDULE				
NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
32	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1259+50.00	55.00' RT.	534.00'
33	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1259+50.00	55.00' LT.	514.00'
34	GR TO BARRIER CONNECTION, APPROACH TYPE 1-31	1264+69.21	54.82' RT.	27.00'
35	GR TO BARRIER CONNECTION, EXIT TYPE 1-31	1264+78.81	53.59' LT.	14.00'

NOT FOR CONSTRUCTION



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

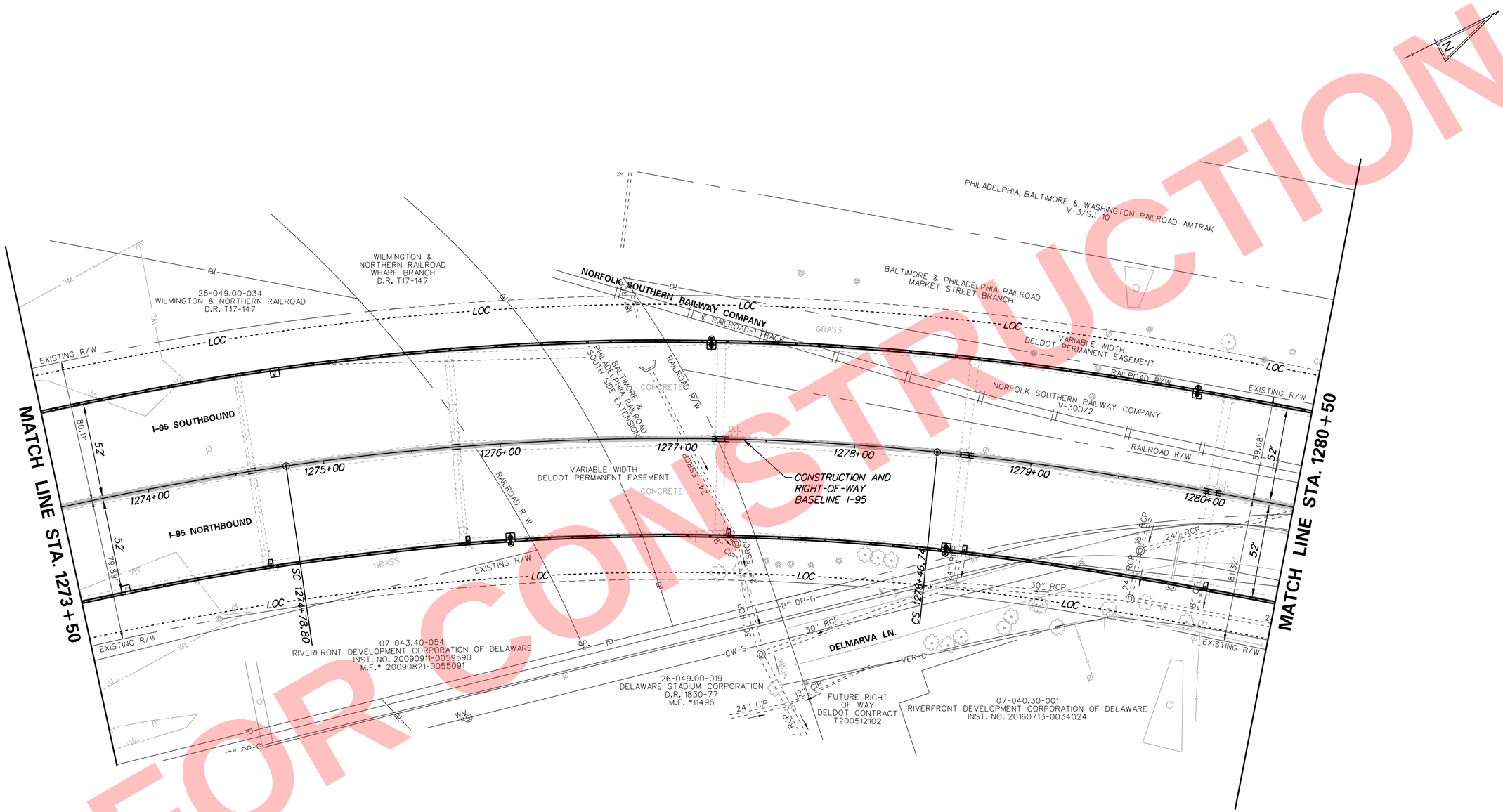
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-748
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-14
SECTION
WRA
SHEET NO.
65



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

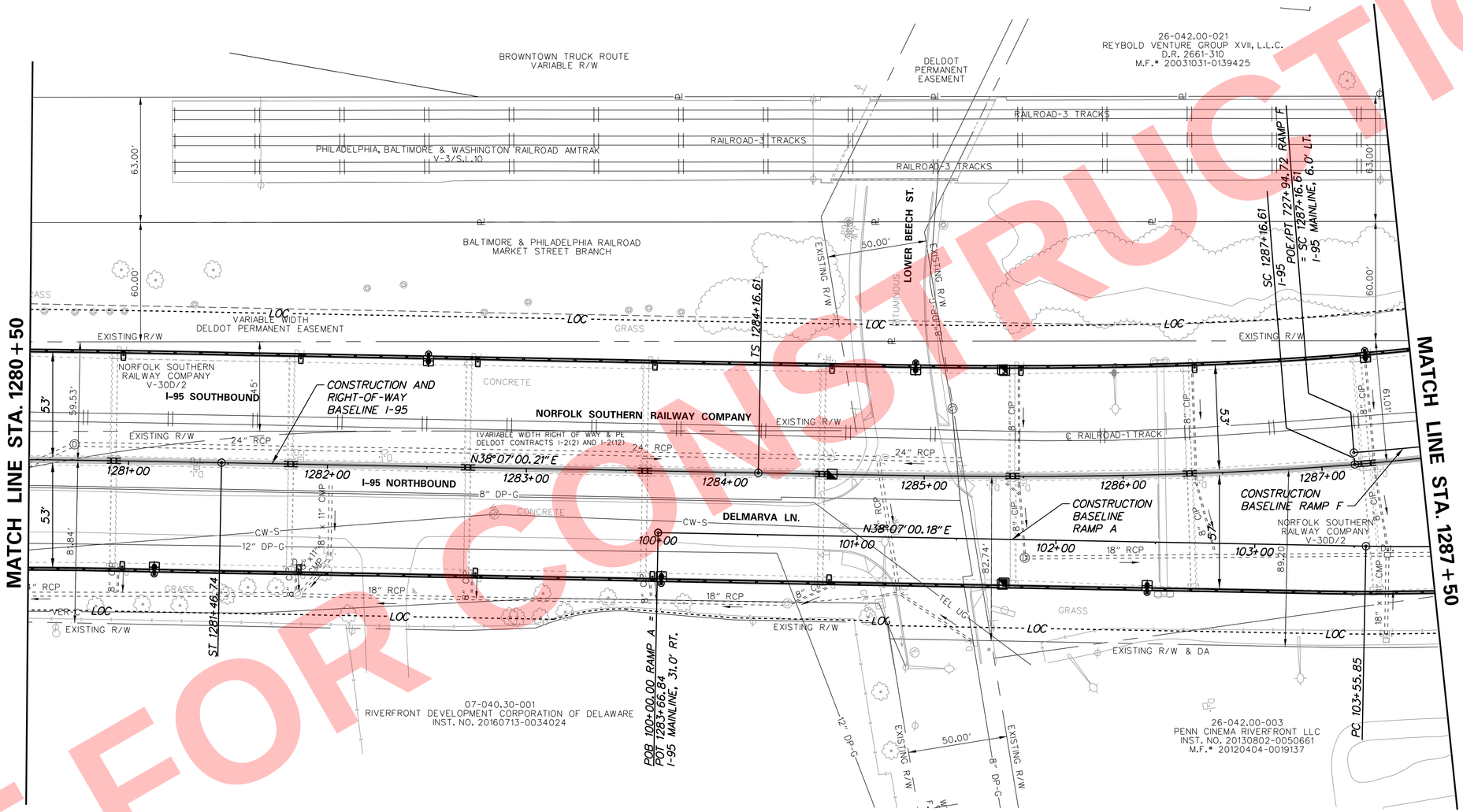
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-748
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-15
SECTION
WRA
SHEET NO.
66



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

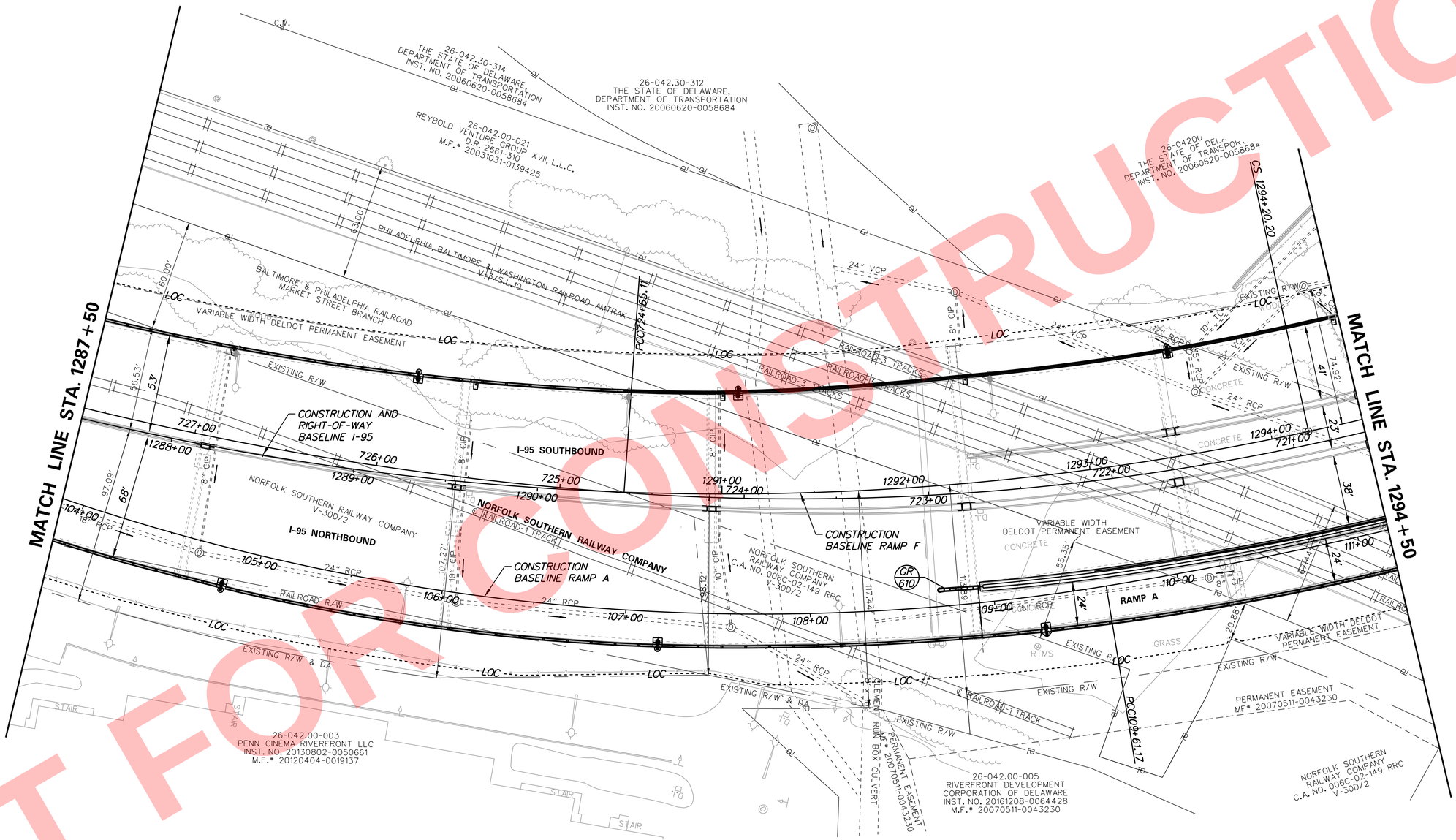
CONTRACT	BRIDGE NO.	1-748
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-16
SECTION
WRA
SHEET NO.
67

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
610	PERMANENT IMPACT ATTENUATOR, TYPE 4, TL-3	108+68.07	7.84'	24.92'



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-748,1-749
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-17
SECTION
WRA
SHEET NO.
68

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
500	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	115+21.54	-3.00'	11.5'
501	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	115+33.04	-3.00'	62.5'
502	END ANCHORAGE 31	115+95.54	-3.00'	12.5'
503	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	115+27.04	32.75'	11.5'
504	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	115+38.54	32.75'	25'
505	END ANCHORAGE 31	115+63.54	32.75'	12.5'

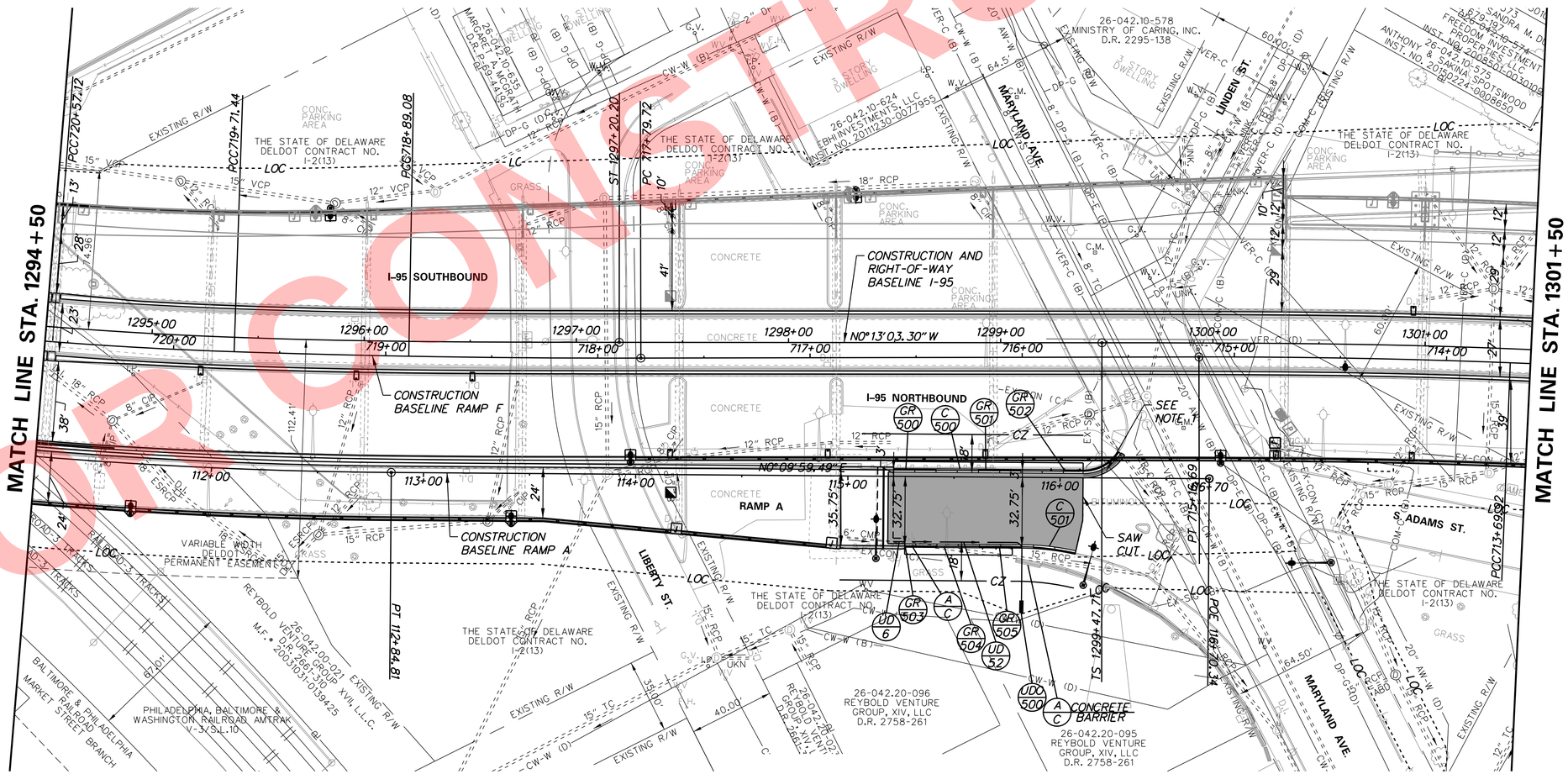
CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
500	I.P.C.C. CURB AND GUTTER, TYPE 3-4	110.55
501	I.P.C.C. CURB AND GUTTER, TYPE 3-4	80.87

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
500	32'	27.57

NOTES:
1. SEE CONSTRUCTION DETAIL DT-14 FOR CURB PATCH DETAIL.



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

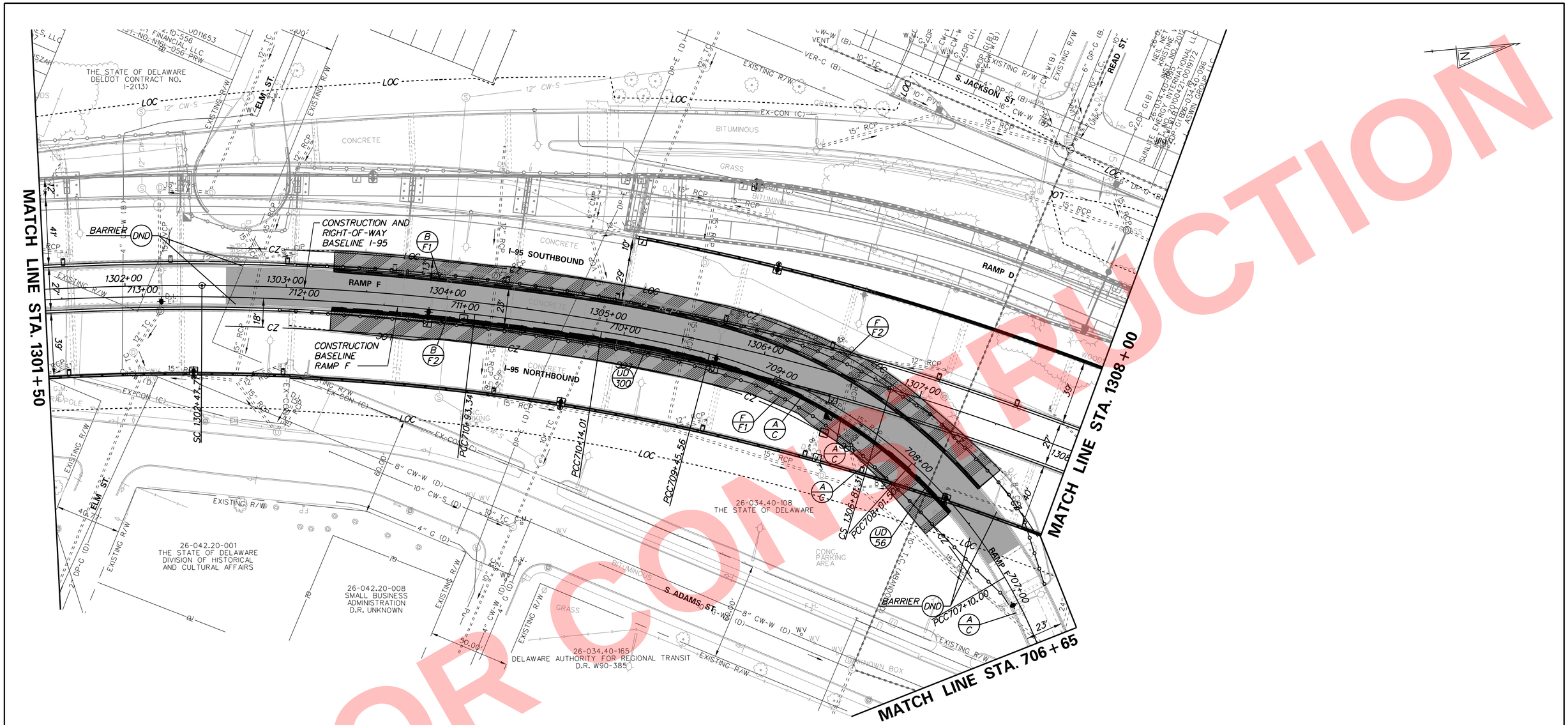
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-748, 1-749, 1-758, 1-758G
T201407404	DESIGNED BY: JAD	
COUNTY	CHECKED BY: BRT	
NEW CASTLE		

CONSTRUCTION PLAN

CP-18
SECTION
WRA
SHEET NO.
69



FENCE SCHEDULE

NO.	QTY.	DESCRIPTION	NOTES
F1	510'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING
F2	545'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
F1*	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	436'
F2*	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	416'

* FOR BARRIER TRANSITION AT BRIDGE PARAPETS, SEE PN-02.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

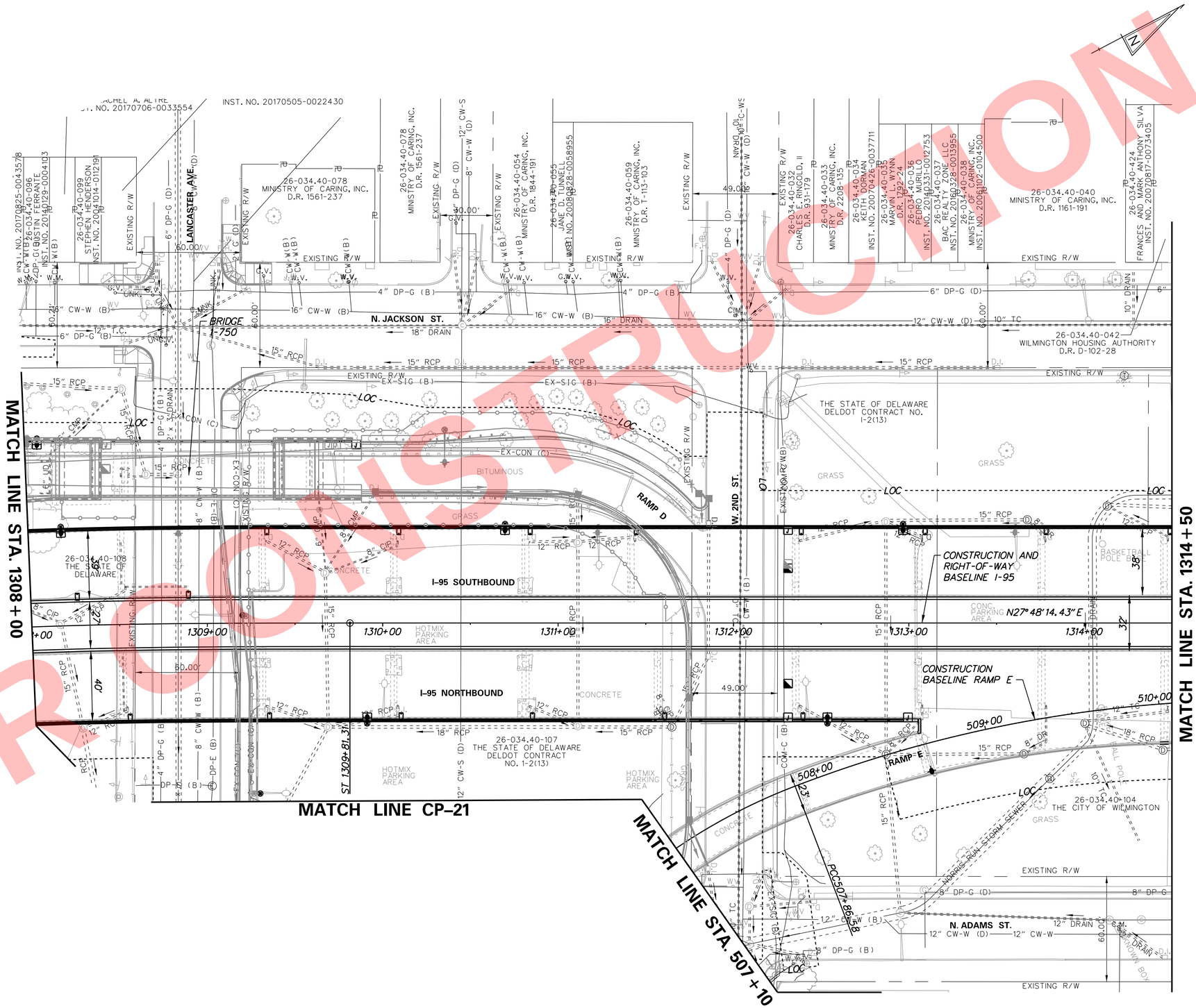
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-748, 1-750, 1-758, 1-758F, 1-758G
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-19

SECTION	SHEET NO.
WRA	70



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

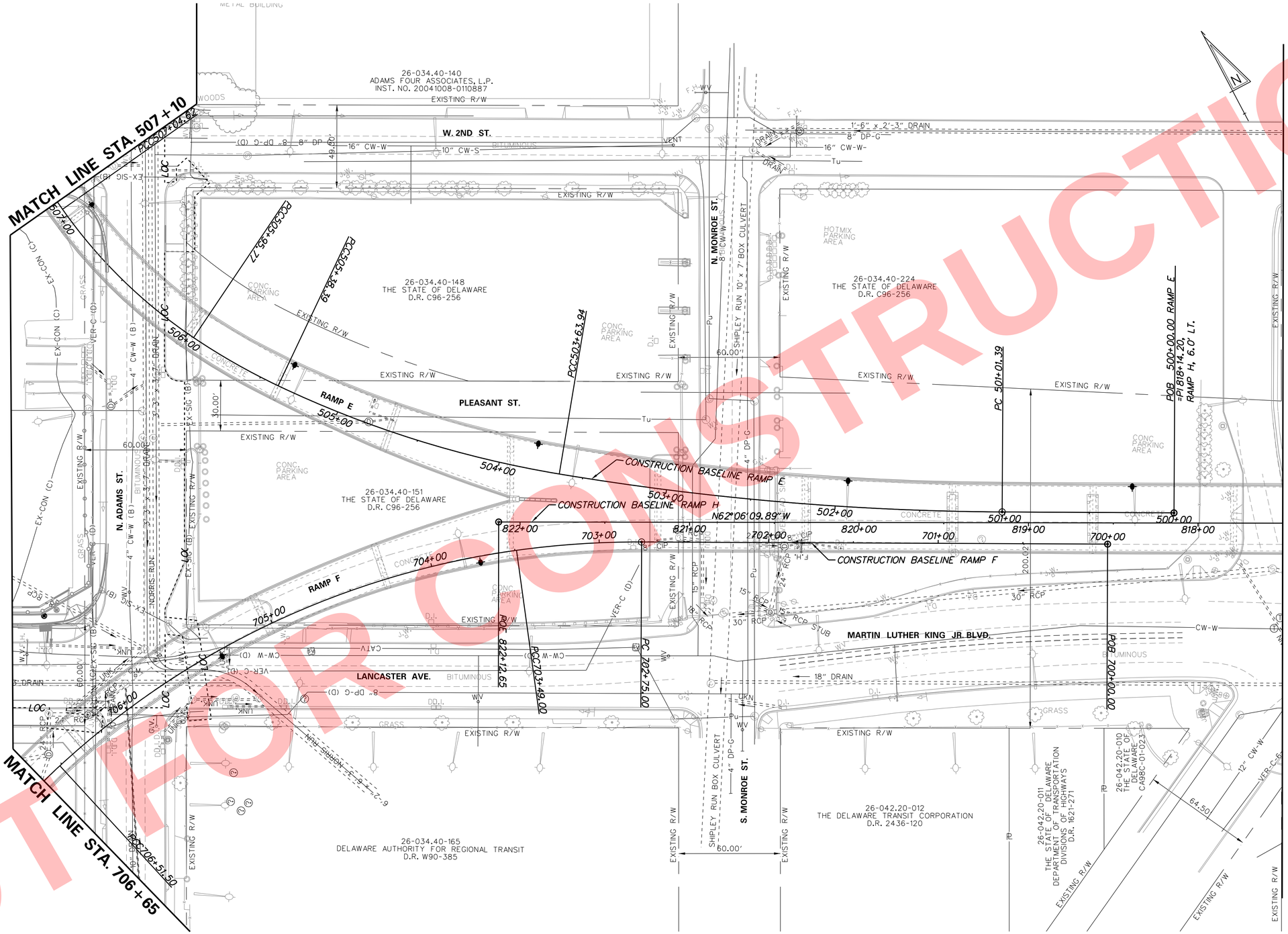
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-748, 1-750, 1-758E
T201407404	DESIGNED BY: JAD	
COUNTY	CHECKED BY: BRT	
NEW CASTLE		

CONSTRUCTION PLAN

CP-20
SECTION
WRA
SHEET NO.
71



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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-758 E, F ,H
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

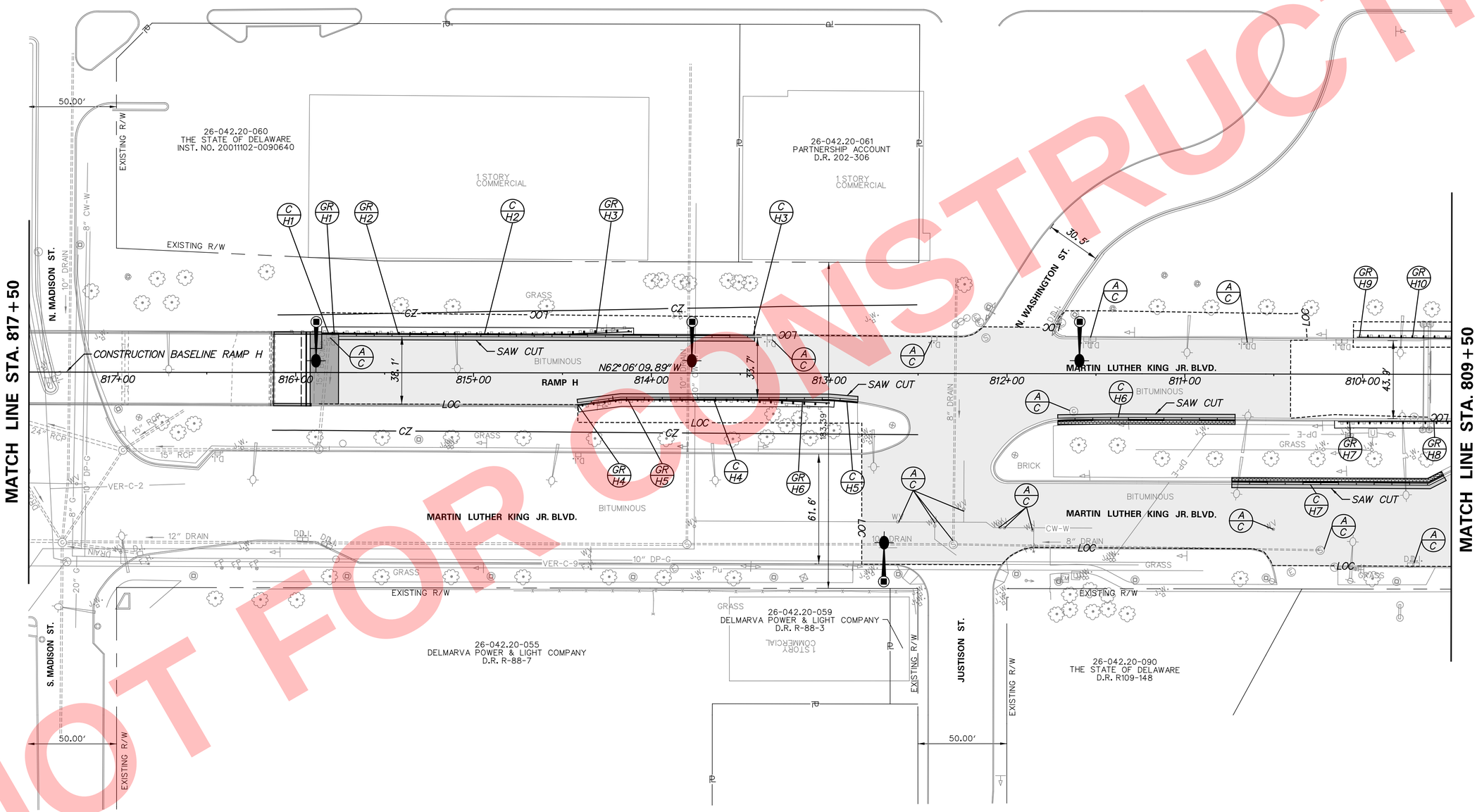
CP-21
SECTION
WRA
SHEET NO.
72

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
H1	TYPE 1-31 BARRIER CONNECTION	815+78.41	21.41	19.75′
H2	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	815+58.66	21.20	98.00′
H3	TYPE 1 END TREATMENT	814+50.58	21.64	50.00′
H4	TYPE 1-31 BARRIER CONNECTION	814+41.33	-17.81	19.75′
H5	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	814+21.50	-15.20	92.00′
H6	TYPE 1 END TREATMENT	813+50.00	-14.64	50.00′
H7	END ANCHORAGE, TYPE 31	810+13.68	26.5′	12.00′
H8	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	810+01.68	26.5′	52.00′
H9	END ANCHORAGE, TYPE 31	810+03.08	20.5′	12.00′
H10	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	809+91.08	20.5′	42.00′

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
H1	PCC CURB, TYPE 1-4	9.75′
H2	I.P.C.C. CURB AND GUTTER, TYPE 3-4	108.00′
H3	I.P.C.C. CURB AND GUTTER, TYPE 3-2	120.00′
H4	I.P.C.C. CURB AND GUTTER, TYPE 3-4	92.00′
H5	I.P.C.C. CURB AND GUTTER, TYPE 3-2	66.00′
H6	I.P.C.C. CURB AND GUTTER, TYPE 3-6	100.00′
H7	I.P.C.C. CURB AND GUTTER, TYPE 3-6	121.00′



NOT FOR CONSTRUCTION

CP-22

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

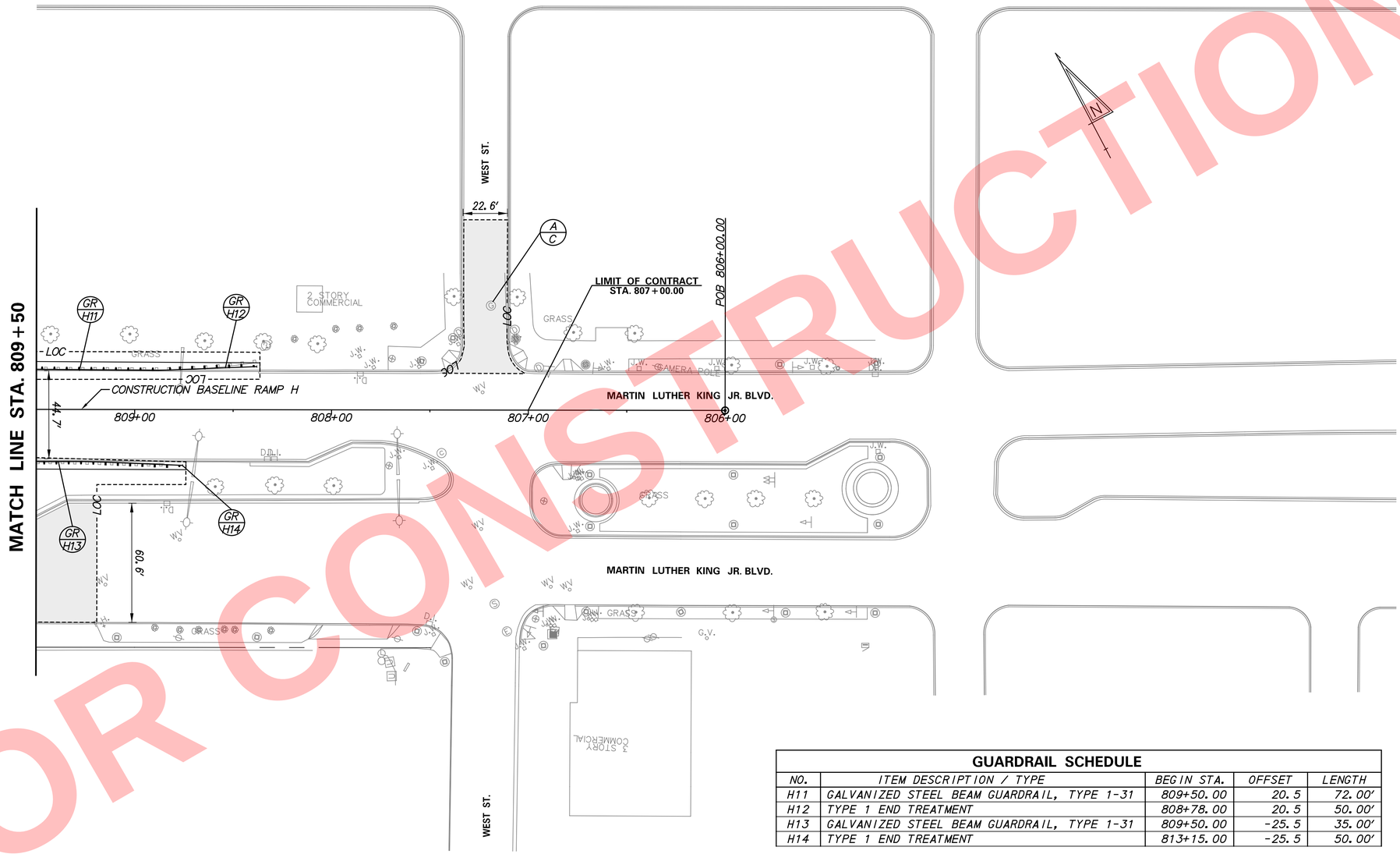
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-758H
T201407404	DESIGNED BY: DHW	
COUNTY		
NEW CASTLE	CHECKED BY: PAH	

CONSTRUCTION PLAN

SHEET NO. 1-73

TOTAL SHTS. 1-178



GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
H11	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	809+50.00	20.5	72.00'
H12	TYPE 1 END TREATMENT	808+78.00	20.5	50.00'
H13	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	809+50.00	-25.5	35.00'
H14	TYPE 1 END TREATMENT	813+15.00	-25.5	50.00'

NOT FOR CONSTRUCTION

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
525	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	1320+97.48	-53.91'	19.75'
526	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1321+17.23	-53.91'	32.77'
527	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	1320+93.44	65.06'	11.50'
528	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1321+04.94	65.06'	45.06'

FENCE SCHEDULE

NO.	QTY.	DESCRIPTION	NOTES
J1	144'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	CONSTRUCTION FENCE OUTSIDE OF CLEAR ZONE

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
502*	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	56.55
503*	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	56.55

*AT LIMITS OF BARRIER WHICH INTERFACE WITH A BRIDGE PARAPET, P.C.C. SAFETY BARRIER SHALL BE TRANSITIONED FROM A 42" F SHAPE FACE TO TIE INTO THE BRIDGE PARAPET'S HEIGHT, WIDTH, AND SHAPE OVER A DISTANCE OF TEN FEET. BARRIER FACE TRANSITION SHALL BE EVENLY DISTRIBUTED AND ALL COSTS OF LABOR, MATERIALS, FORMWORK, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCIDENTAL TO THE APPLICABLE P.C.C. SAFETY BARRIER ITEM.

ROADWAY CORE SCHEDULE

NO.	LOCATION	OFFSET	DESCRIPTION
PC-7	NB RT SHLDR	5.0' RT. EL	3" HMA, 6" STONE
PC-33	SB LT SHLDR	1.0' LT. EL	6.75" HMA, 8" CR

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
510	I.P.C.C. CURB AND GUTTER, TYPE 1-4	52.52
511	I.P.C.C. CURB AND GUTTER, TYPE 1-4	56.52
J1	INT. PCC CURB AND GUTTER, TYPE 3-4	151.00'
J2	INT. PCC CURB AND GUTTER, TYPE 3-4	170.00'

CONVERT TO JUNCTION BOX SCHEDULE

NO.	STATION	OFFSET	T.C. EL.	INV. EL.
504	910+10.18	-22.48	51.51	MATCH EX.

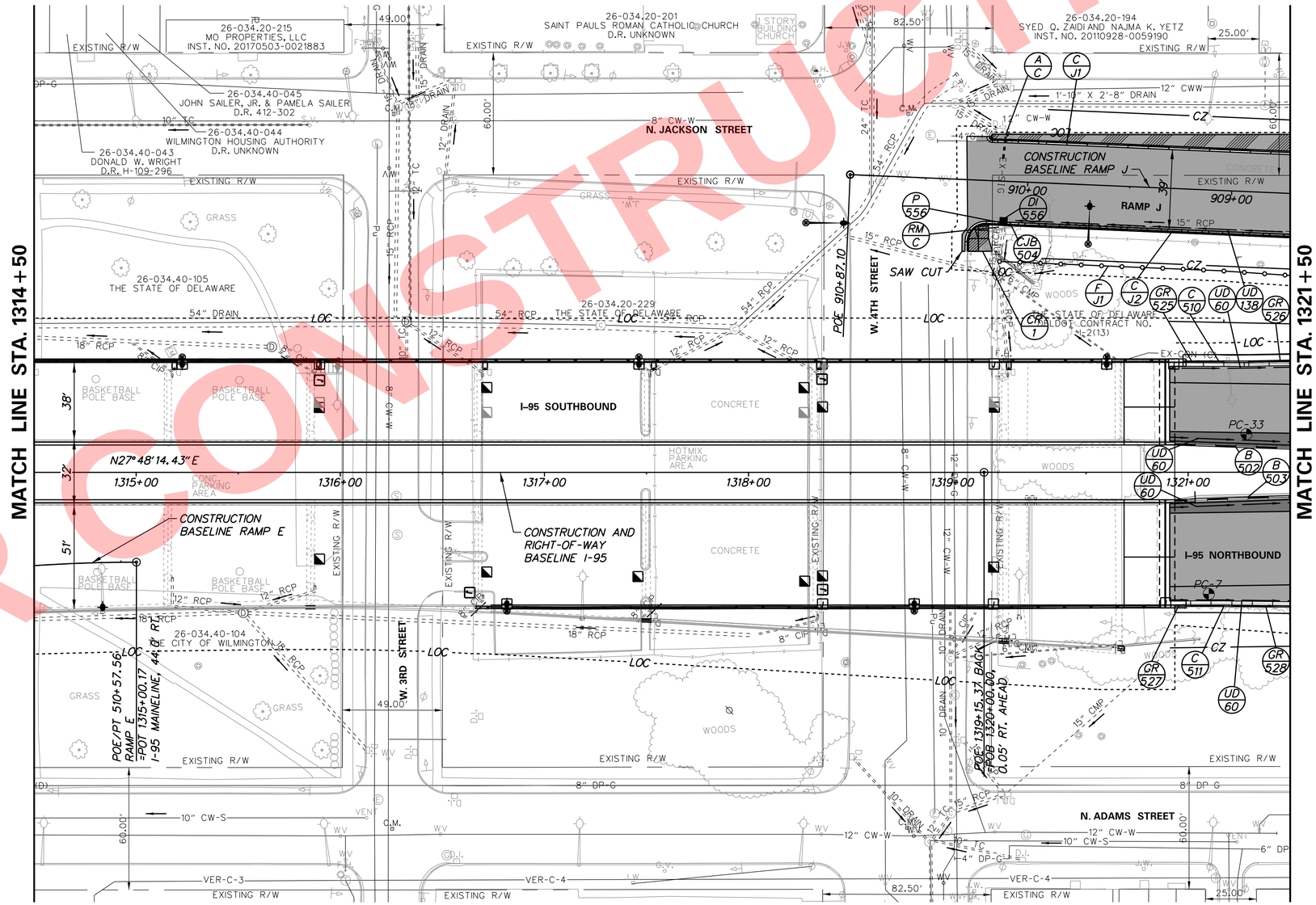
DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
*556	910+11.08	-21.01	34" x 24"	2	53.53	49.09

*INLET SHALL BE CAST IN PLACE AND CONNECTED TO CJB-504 WITH P-556

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
556	15" RCP	IV	1	0.0050	49.09	49.09



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-751
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-24
SECTION
WRA
SHEET NO.
75

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
533	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	1324+99.78	-60.31'	42.00'
534	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1321+50.00	-54.32'	349.92'
535	GUARDRAIL END TREATMENT, TYPE 3-31	1325+41.81	-61.60'	50.00'
536	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1321+50.00	65.49'	348.78'
J3	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	907+81.17	20.00'	502.50'
J4	END ANCHORAGE, TYPE 1-31	907+67.39	20.00'	14.00'
K1	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1000+00.00	26.00'	251.00'

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
504	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	600.13'
505	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	600.13'

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
526	15" RCP	IV	39'	0.0050	64.22	64.03
527	15" RCP	IV	37'	0.0050	64.51	64.32
528	15" RCP	IV	36'	0.0050	64.79	64.61
534	15" RCP	IV	2'	0.0100	64.34	64.33

ROADWAY CORE SCHEDULE

NO.	LOCATION	OFFSET	DESCRIPTION
PC-24	NB RT TRVL	5.0' RT. CL	2.75" HMA, 10.5" PCC, 4" SC

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
514	I.P.C.C. CURB AND GUTTER, TYPE 1-4	391.91'
606	I.P.C.C. CURB AND GUTTER, TYPE 1-2	44.27'
515	I.P.C.C. CURB AND GUTTER, TYPE 1-4	348.78'
J3	I.P.C.C. CURB AND GUTTER, TYPE 3-4	255.00'
J4	I.P.C.C. CURB AND GUTTER, TYPE 3-4	608.00'
K1	I.P.C.C. CURB AND GUTTER, TYPE 3-4	251.00'

CONVERT TO JUNCTION BOX SCHEDULE

NO.	STATION	OFFSET	T.C. EL.	INV. EL.
500	904+19.46	-10.42	66.76	MATCH EX.

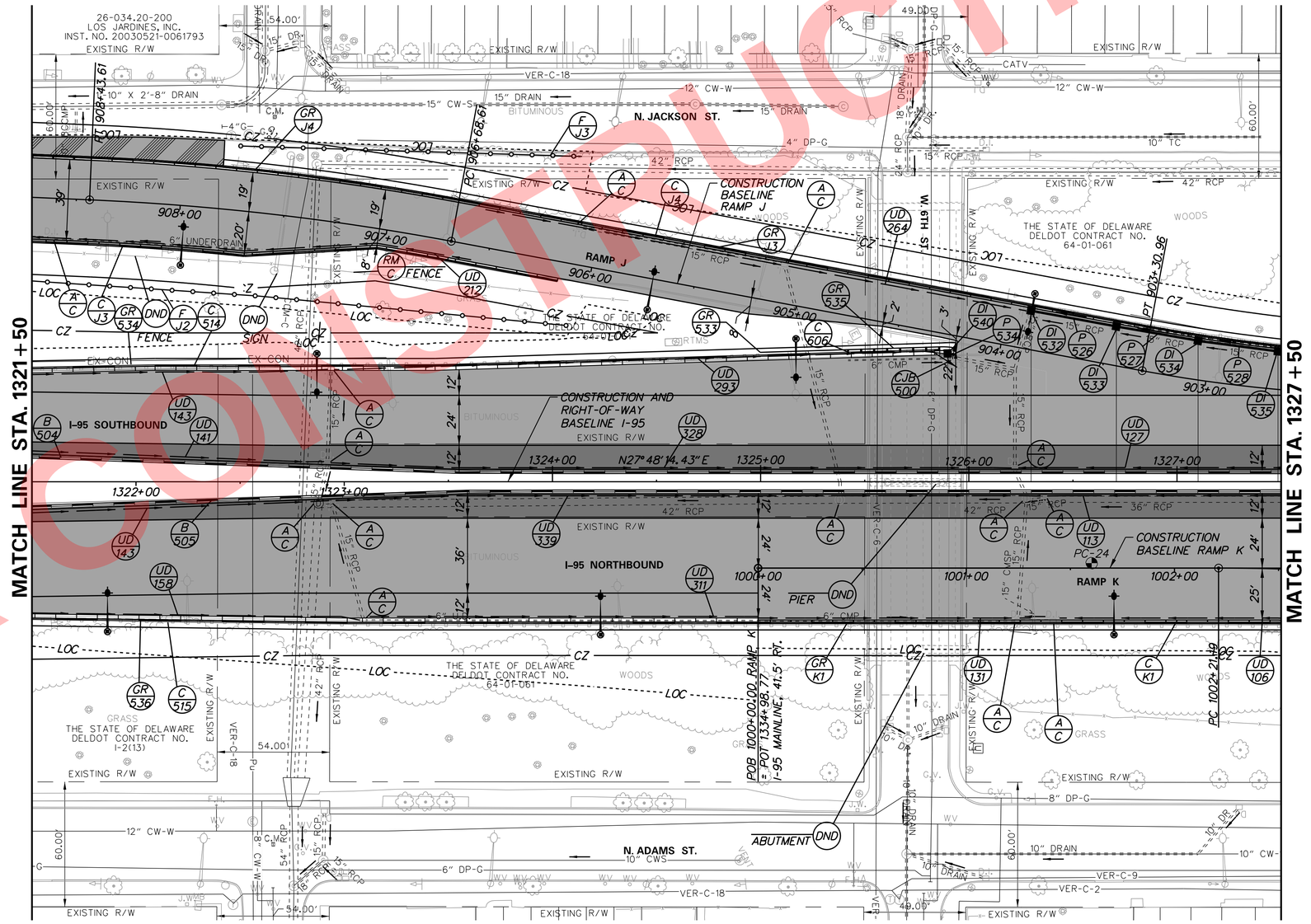
DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
532	903+88.66	19.83	34" x 24"	2	68.28	MATCH EX.
533	903+47.11	19.95	34" x 24"	2	68.08	64.22
534	903+06.55	20.01	34" x 24"	2	68.12	64.51
535	902+66.78	19.58	34" x 24"	2	68.39	64.79
*540	904+24.74	-7.08	34" x 24"	2	67.84	64.34

*INLET SHALL BE CAST IN PLACE AND CONNECTED TO CJB-500.

FENCE SCHEDULE

NO.	QTY.	DESCRIPTION	NOTES
J2	258'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	CONSTRUCT FENCE OUTSIDE OF CLEAR ZONE
J3	165'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-752, 1-753
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-25
SECTION
WRA
SHEET NO.
76

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
541	GUARDRAIL END TREATMENT, TYPE 3-31	1330+93.47	63.45′	50.00′
542	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1331+43.54	63.33′	23.13′
543	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1331+43.48	61.49′	206.61′
J1	GUARDRAIL TO BARRIER CONNECTION, EXIT TYPE 1-31	901+93.99	18.43′	12.00′
J2	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	902+65.46	20.56′	70.00′
K2	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1002+52.03	25.57′	602.00′
K3	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1006+69.15	-1.00′	185.00′

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
607	I.P.C.C. CURB AND GUTTER, TYPE 1-2	44.25′
517	I.P.C.C. CURB AND GUTTER, TYPE 1-4	206.61′
J5	I.P.C.C. CURB AND GUTTER, TYPE 3-4	82.00′
K2	I.P.C.C. CURB AND GUTTER, TYPE 3-4	602.00′

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
506	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	22.17′
507	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54″	55.50′
508	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	257.98′
509	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54″	55.50′
510	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	127.77′
511	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	600.00′
512	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	600.00′

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
*500	1329+10.16	-57.50	34″ x 18″	2	69.71	MATCH EX.
*501	1329+53.77	-57.50	34″ x 18″	2	70.03	68.10
*502	1329+93.60	-57.50	34″ x 18″	2	70.33	68.40
*503	1330+34.03	-57.50	34″ x 18″	2	70.62	68.69
*504	1330+73.60	-57.50	34″ x 18″	2	70.91	68.98
*505	1331+13.98	-57.50	34″ x 18″	2	71.21	69.28
*506	1331+53.87	-57.50	34″ x 18″	2	71.50	69.67
*507	1332+22.65	-57.50	34″ x 18″	2	72.01	MATCH EX.
*508	1332+66.59	-57.50	34″ x 18″	2	72.33	70.40
*509	1333+07.06	-57.50	34″ x 18″	2	72.63	70.70
*510	1333+45.83	-57.50	34″ x 18″	2	72.91	70.98
536	902+24.52	18.53	34″ x 24″	2	68.70	65.10
537	901+84.47	17.18	34″ x 24″	2	69.40	65.90
559	1329+10.15	-65.11	34″ x 24″	2	72.23	66.26
560	1332+22.88	-62.13	34″ x 24″	2	74.72	68.54

*INLET FRAME SHALL SIT DIRECTLY ON BOX WALLS

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
529	15″ RCP	IV	38′	0.0055	65.10	64.89
530	15″ RCP	IV	37′	0.0190	65.90	65.20
559	15″ RCP	IV	5′	0.0100	66.26	66.21
560	15″ RCP	IV	3′	0.0100	68.54	68.51

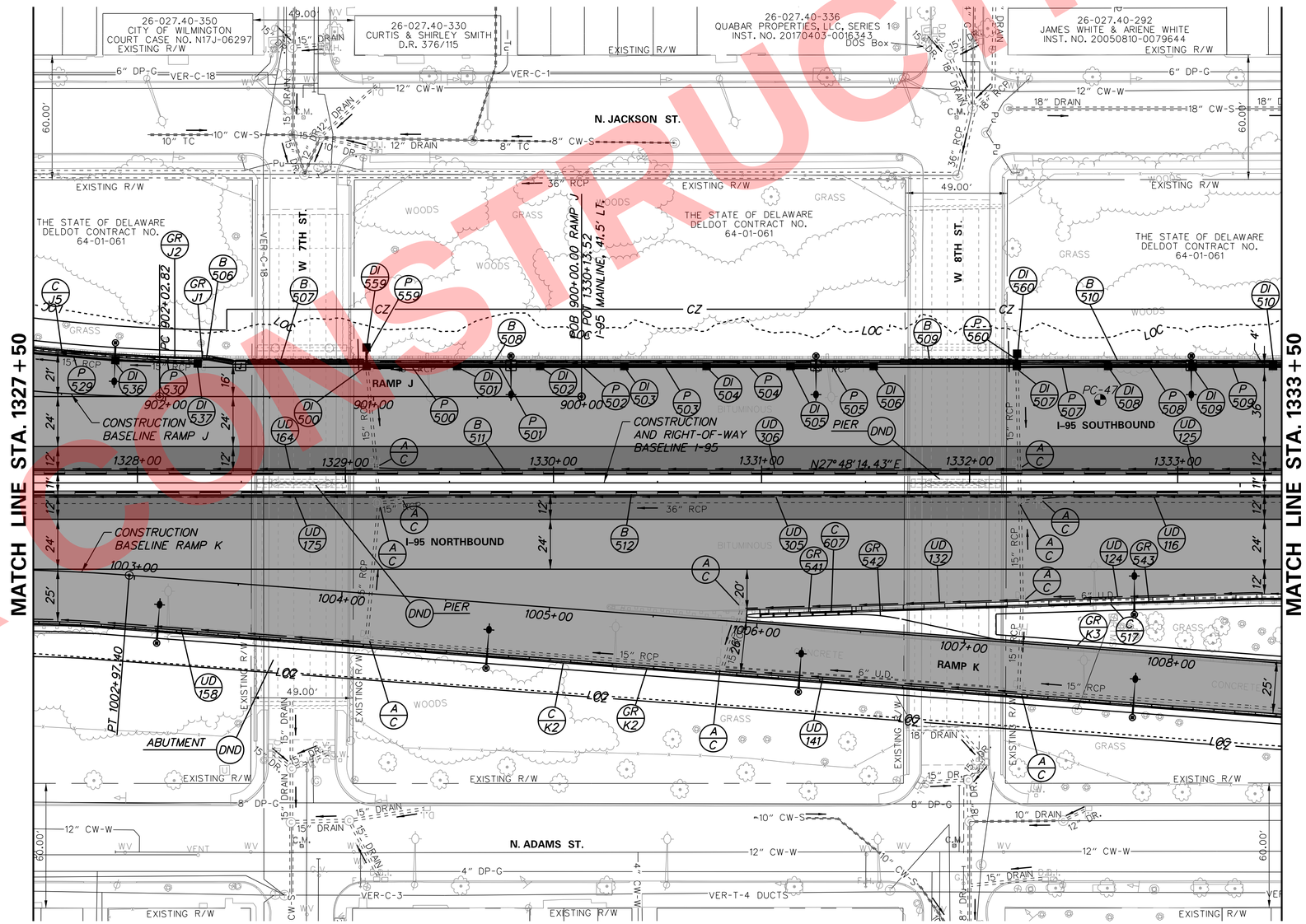
ROADWAY CORE SCHEDULE

NO.	LOCATION	OFFSET	DESCRIPTION
PC-47	SB RT TRVL	LT. EL	3.5″ HMA, 10.3″ PCC, 4″ SC

*SLOTTED DRAIN PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
500	15″ CPP-S	N/A	41′	0.0054	68.10	67.88
501	15″ CPP-S	N/A	37′	0.0054	68.40	68.20
502	15″ CPP-S	N/A	38′	0.0051	68.69	68.50
503	15″ CPP-S	N/A	37′	0.0052	68.98	68.79
504	15″ CPP-S	N/A	38′	0.0053	69.28	69.08
505	15″ CPP-S	N/A	37′	0.0078	69.67	69.38
507	15″ CPP-S	N/A	41′	0.0054	70.40	70.18
508	15″ CPP-S	N/A	38′	0.0053	70.70	70.50
509	15″ CPP-S	N/A	36′	0.0050	70.98	70.80

* SEE DETAILS, SHEET DT-11



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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-754
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-26
SECTION WRA
SHEET NO. 77

UTILITY TEST HOLE SCHEDULE

NO.	UTILITY	STATION	OFFSET	GRND EL.	COVER	O.D. & MATERIAL
48	SD-RCB	1337+46.28	65.93'	77.87	3.58'	--
49	SD-RCB	1337+46.28	56.07'	75.51	2.69'	--
50	SD-RCB	1337+47.74	-59.18'	75.82	2.79'	--

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
514	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	337.81'
515	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"	54.50'
516	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	34.25'
517	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	600.00'
518	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	600.00'
519	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	579.75'
L1	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	175.00'

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
*511	1333+85.97	-57.50	34" x 18"	1	73.21	71.28
*512	1334+26.45	-57.50	34" x 18"	1	73.51	71.58
*513	1334+65.72	-57.50	34" x 18"	1	73.80	71.87
*514	1335+45.89	-57.50	34" x 18"	1	74.38	72.45
*515	1335+86.61	-57.50	34" x 18"	1	74.68	72.75
*516	1336+25.92	-57.50	34" x 18"	1	74.97	73.04
*517	1336+65.69	-57.50	34" x 18"	1	75.26	73.43
518	1337+62.37	-57.50	34" x 24"	1	75.98	MATCH EX.
538	1338+02.10	-57.91	34" x 24"	1	76.26	71.09
539	1338+42.42	-60.21	34" x 24"	1	76.47	71.36
557	1012+00.76	-13.20	34" x 24"	1	96.47	92.97
*568	1335+07.19	-57.50	34" x 18"	1	74.10	72.17

*INLET FRAME SHALL SIT DIRECTLY ON BOX WALLS

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
531	15" RCP	IV	37'	0.0076	71.09	70.81
532	15" RCP	IV	38'	0.0066	71.36	71.11
533	15" RCP	IV	38'	0.0120	71.92	71.47
557	15" RCP	IV	30'	TBD	92.97	TBD

ROADWAY CORE SCHEDULE

NO.	LOCATION	OFFSET	DESCRIPTION
PC-25	NB RT TRVL	6.0' LT. EL	2.75" HMA, 9.75" PCC, 3.75" SC

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
608	I.P.C.C. CURB AND GUTTER, TYPE 3-2	19.75'
K3	I.P.C.C. CURB AND GUTTER, TYPE 3-4	313.00'
K4	P.C.C. CURB, TYPE 1-6	14.00'
K5	P.C.C. CURB, TYPE 1-8	29.00'

*SLOTTED DRAIN PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
510	15" CPP-S	N/A	37'	0.0054	71.28	71.08
511	15" CPP-S	N/A	38'	0.0053	71.58	71.38
512	15" CPP-S	N/A	36'	0.0052	71.87	71.68
513	15" CPP-S	N/A	39'	0.0052	72.17	71.97
561	15" CPP-S	N/A	36'	0.0050	72.45	72.27
514	15" CPP-S	N/A	38'	0.0053	72.75	72.55
515	15" CPP-S	N/A	36'	0.0052	73.04	72.85
516	15" CPP-S	N/A	37'	0.0078	73.43	73.14

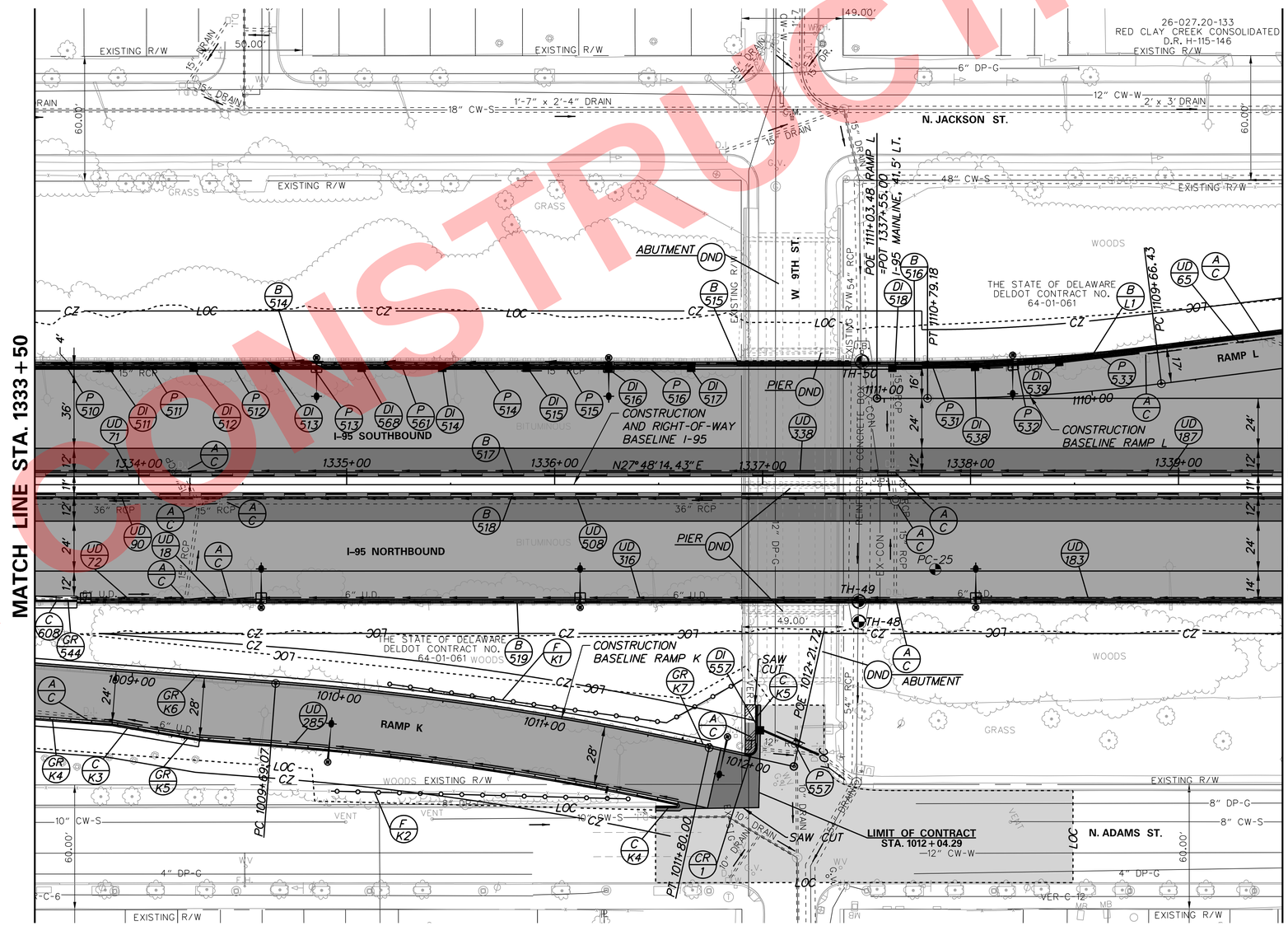
* SEE DETAILS, SHEET DT-11

FENCE SCHEDULE

NO.	QTY.	DESCRIPTION	NOTES
K1	177'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING
K2	144'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
544	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	1333+50.50	55.50'	19.75'
K4	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	100+54.87	25.50'	67.00'
K5	END ANCHORAGE 31	1009+21.02	28.22'	14.00'
K6	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	108+52.84	-1.00'	313.00'
K7	END ANCHORAGE 31	1011+66.38	-1.00'	14.00'



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-755, 1-756
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-27

SECTION WRA

SHEET NO. 78

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
555	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	1344+96.22	38.00′	11.50′
556	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	1345+07+97	38.00′	41.11′
L1	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	1107+48.94	17.00′	20.00′
L2	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	1107+49.25	-2.00′	20.00′
L3	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1107+28.94	17.00′	55.00′
L4	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1107+29.22	-2.00′	448.00′
L5	PERMANENT IMPACT ATTENUATOR, TYPE 1	1106+74.20	17.00′	50.00′
M1	PERMANENT IMPACT ATTENUATOR, TYPE 1	1202+01.19	23.35′	50.00′
M2	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1202+52.32	20.00′	55.00′
M3	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	1203+08.09	20.00′	20.00′
M4	PERMANENT IMPACT ATTENUATOR, TYPE 1	1200+72.80	-5.92′	50.00′
M5	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1201+22.49	-4.00′	210.00′
M6	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	1203+41.64	-4.00′	20.00′

FENCE SCHEDULE

NO.	QTY.	DESCRIPTION	NOTES
M1	90′	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND FOR CONDUIT INSTALL
M2	124′	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	CONSTRUCT FENCE OUTSIDE OF CLEAR ZONE
M3	100′	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND FOR CONDUIT INSTALL
M4	66′	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND FOR CONDUIT INSTALL
L1	355′	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING
L2	86′	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING

BARRIER SCHEDULE

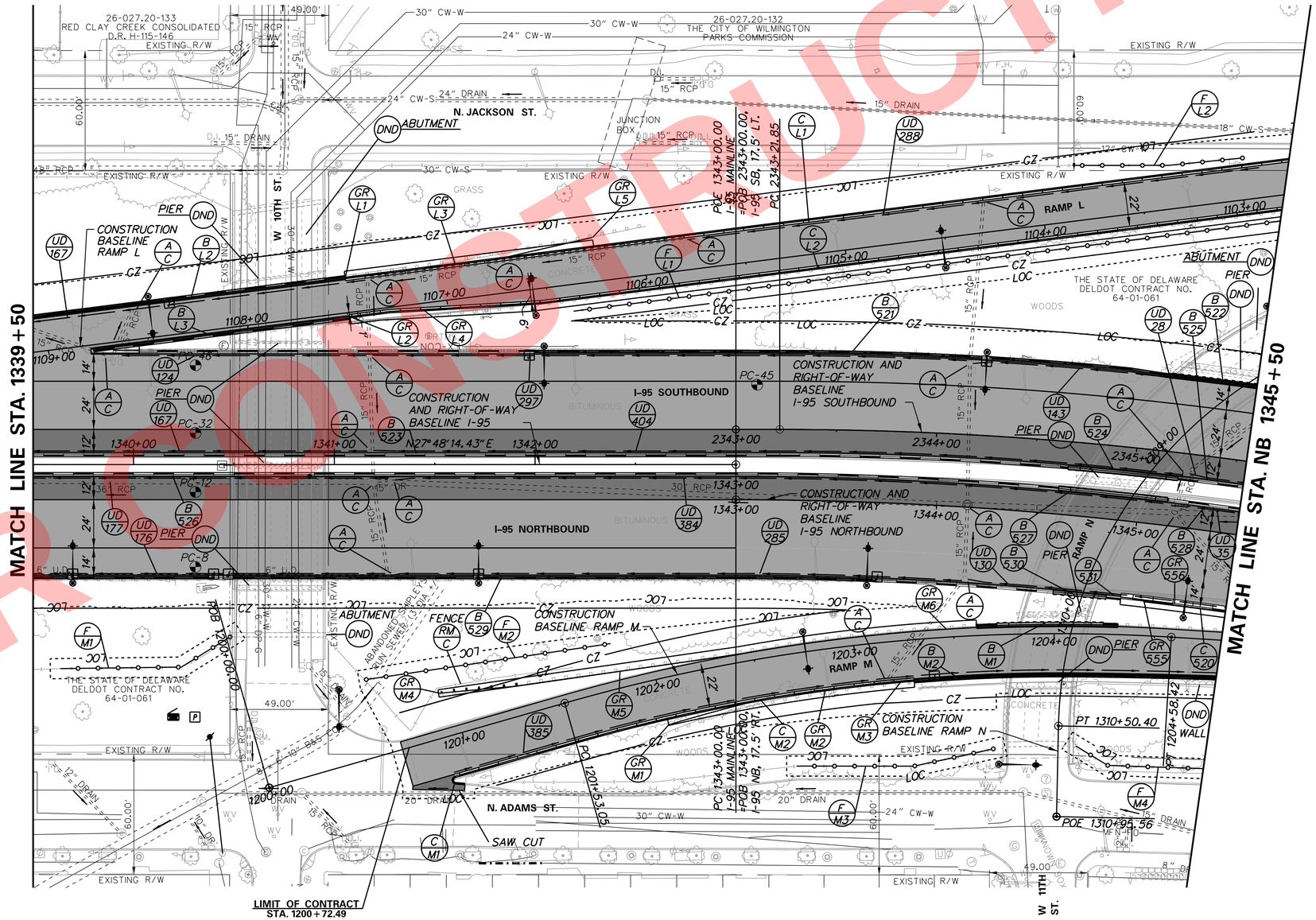
NO.	ITEM DESCRIPTION / TYPE	LENGTH
521	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	513.60′
522	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54″	66.00′
523	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	515.73′
524	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54″	55.00′
525	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	32.65′
526	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	510.88′
527	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54″	54.50′
528	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	36.30′
529	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	508.30′
530	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54″	26.50′
531	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	7.25′
L2	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	157.00′
L3	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	129.00′
M1	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54″	71.00′
M2	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42″ TYPE 1	151.00′

ROADWAY CORE SCHEDULE

NO.	LOCATION	OFFSET	DESCRIPTION
PC-8	NB RT SHLDR	4.5′ RT. EL	7″ HMA
PC-12	NB LT SHLDR	9.0′ LT. EL	6.5″ HMA, 6.5+″ CR
PC-32	SB LT SHLDR	6.0′ LT. EL	7″ HMA, 7.5″ STONE
PC-45	SB RT TRVL	6.0′ LT. EL	3″ HMA, 10.5″ PCC, 3″ SC
PC-46	SB RT SHLDR	3.0′ RT. EL	8″ HMA, 5+″ SC

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
520	I.P.C.C. CURB AND GUTTER, TYPE 1-2	52.69′
L1	I.P.C.C. CURB AND GUTTER, TYPE 3-4	473.00′
L2	I.P.C.C. CURB AND GUTTER, TYPE 3-4	468.00′
M1	P.C.C. CURB, TYPE 1-6	10.00′
M2	I.P.C.C. CURB AND GUTTER, TYPE 3-4	234.00′



NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-756, 1-757
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-28

SECTION: WRA

SHEET NO. 79

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GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
557	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	1345+50.00	38.00'	39.79'
558*	END ANCHORAGE 31, DOUBLE FACE	1345+90.71	38.00'	12.50'
611	PERMANENT IMPACT ATTENUATOR, TYPE 4	2350+31.51	-43.51	50.00'
L5	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1102+81.69	-7.00'	134.00'
L6	PERMANENT IMPACT ATTENUATOR, TYPE 1	1101+14.04	-4.67'	40.00'
N1	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	1308+14.81	24.00'	20.00'
N2	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1307+97.09	24.00'	213.00'
N3	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	1306+20.51	24.00'	12.00'
N4	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	1307+72.21	-6.00'	20.00'
N5	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1307+51.87	-6.00'	248.00'
N6	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	1305+00.07	-3.59'	12.00'

*SEE DRAWING DT-13

FENCE SCHEDULE

NO.	QTY.	DESCRIPTION	NOTES
L3	45'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING
M5	324'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND FOR CONDUIT INSTALL
O1	47'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND FOR CONDUIT INSTALL

UNDERDRAIN OUTLETS

NO.	LENGTH	DIS. EL.
N1	32.00'	86.9

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
542	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	398.24'
543	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"	46.50'
544	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	13.55'
545	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	333.66'
546	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"	120.00'
547	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	147.95'
548	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	329.65'
549	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"	122.50'
550	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	148.63'
551	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	270.51'
M3	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	327.00'
N1	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	371.00'
N2	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 54"	154.00'

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
520	1349+29.94	-10.83	34" x 24"	1	82.63	75.96
522	1350+42.15	-11.26	72" x 24"	1	87.57	79.27
523	1351+11.21	-11.13	34" x 24"	1	88.37	81.10
541	2347+22.46	11.50	34" x 24"	1	83.24	MATCH EX.
542	2350+52.17	10.11	34" x 24"	1	86.75	MATCH EX.
551	1303+44.36	21.01	34" x 24"	1	85.23	81.73
552	1303+11.36	21.11	34" x 24"	1	85.11	MATCH EX.
553	1302+79.44	21.20	34" x 24"	1	85.21	81.71
558	1205+22.46	17.46	34" x 24"	1	79.33	75.84

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
519	24" RCP	IV	2'	0.0100	81.10	81.08
535	30" RCP	IV	81'	0.0088	76.78	76.06
536	30" RCP	IV	323'	0.0077	79.27	76.78
518	30" RCP	IV	2'	0.0088	75.96	75.95
551	15" RCP	IV	30'	0.0239	81.73	81.01
553	15" RCP	IV	29'	0.0240	81.71	81.01
558	15" RCP	IV	11'	0.0050	75.84	75.79
575	15" RCP	IV	3'	0.0183	80.12	80.07

ROADWAY CORE SCHEDULE

NO.	LOCATION	OFFSET	DESCRIPTION
PC-16	SB RT SHLDR	5.0' RT. EL	7" HMA
PC-22	NB LT SHLDR	4.0' LT. EL	8" HMA, 8" CR
PC-26	NB RT TRVL	6.0' LT. EL	2.75" HMA, 10" PCC, 4.25" SC
PC-27	NB RT TRVL	6.0' RT. CL	2.5" HMA, 10.3" PCC, 5.75" SC

CONVERT TO JUNCTION BOX SCHEDULE

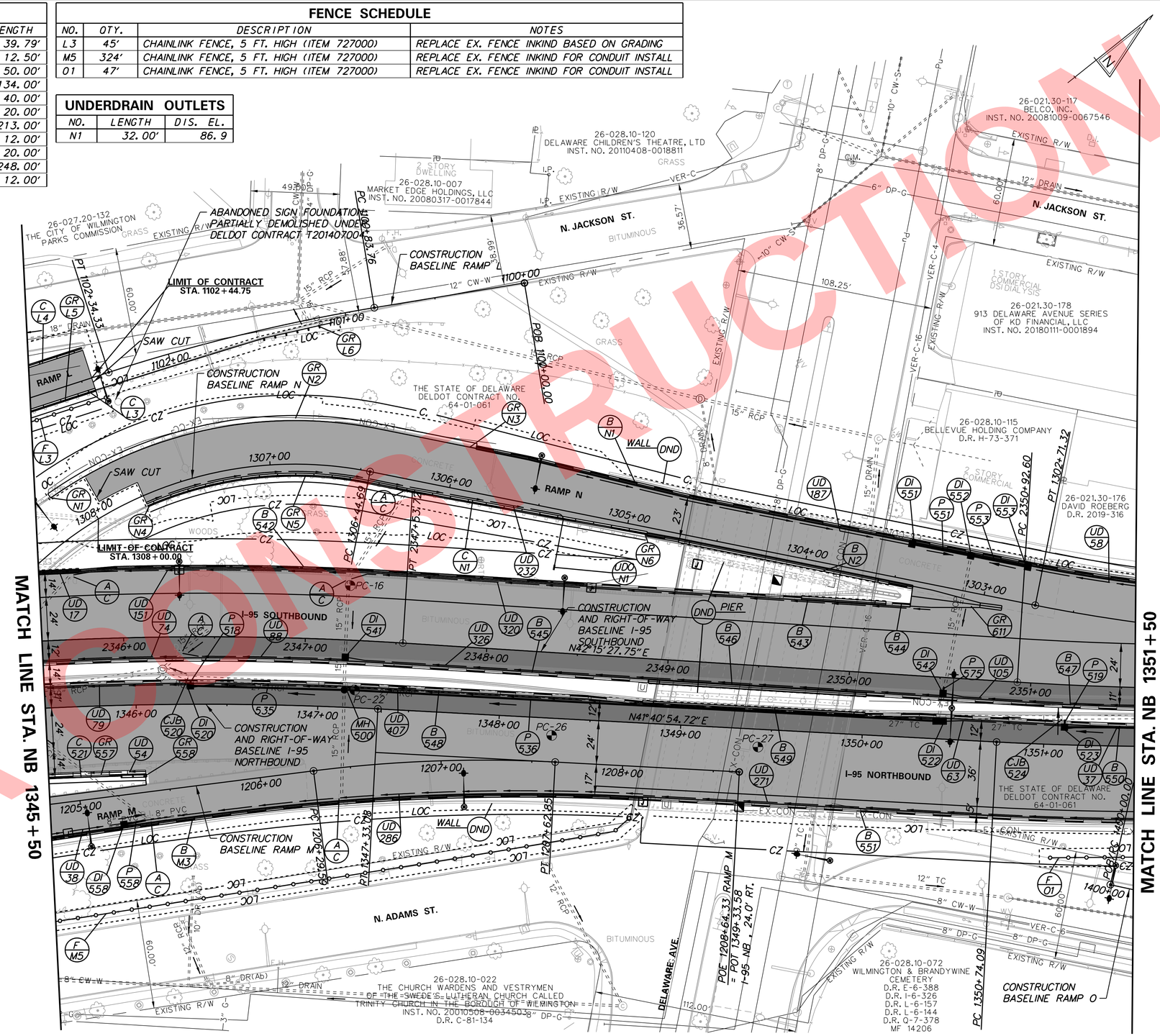
NO.	STATION	OFFSET	T.C. EL.	INV. EL.
520	1346+30.13	-14.44	79.81	MATCH EX.
524	1351+11.25	-14.96	84.50	MATCH EX.

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INV. EL.
500	1347+14.17	-9.55	48" x 30"	83.57	76.78

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
521	I.P.C.C. CURB AND GUTTER, TYPE 1-2	53.50'
L3	I.P.C.C. CURB AND GUTTER, TYPE 3-4	38.00'
L4	I.P.C.C. CURB AND GUTTER, TYPE 3-4	32.00'
N1	I.P.C.C. CURB AND GUTTER, TYPE 3-4	281.00'



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	CHECKED BY: BRT
NEW CASTLE	

CONSTRUCTION PLAN

CP-29

SECTION: WRA

SHEET NO. 80

FENCE SCHEDULE

NO.	QTY.	DESCRIPTION	NOTES
02	512'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	CONSTRUCT FENCE OUTSIDE OF CLEAR ZONE
P1	194'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING

CONVERT TO JUNCTION BOX SCHEDULE

NO.	STATION	OFFSET	T.C. EL.	INV. EL.
525	2352+68.13	15.98	85.94	MATCH EX.
526	1354+14.39	-10.26	87.14	MATCH EX.
529	1355+64.14	-8.10	88.20	MATCH EX.
531	1357+12.98	-6.19	94.30	MATCH EX.
532	1352+60.84	35.92	89.65	MATCH EX.
530	1355+66.16	41.36	93.84	MATCH EX.

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
576	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	1355+75.58	48.00'	11.50'
577	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	1355+86.76	48.00'	168.01
578	GUARDRAIL TO BARRIER CONNECTION (APPROACH TYPE 31)	2357+12.89	-50.00'	11.50'
579	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	2357+24.74	-50.00'	21.31'
01	PERMANENT IMPACT ATTENUATOR, TYPE 1	1404+51.65	21.70'	40.00'
02	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1404+90.33	17.00'	156.00'
P1	END ANCHORAGE 31	1503+85.98	21.05'	14.00'
P2	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1503+53.40	20.37'	32.00'

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
552	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	381.64'
553	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	594.36'
554	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	597.23'
555	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	437.58'
N5	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	212.00'

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
524	1352+62.27	-8.35	34" x 24"	1	89.26	82.54
525	1354+14.41	-6.65	34" x 24"	1	92.36	83.83
527	2355+58.52	-50.50	72" x 24"	1	90.22	86.51
528	1355+64.25	-5.42	34" x 24"	1	92.99	MATCH EX.
529	1355+66.20	47.50	34" x 24"	1	95.30	91.14
531	1352+63.61	43.28	34" x 24"	1	92.91	MATCH EX.
543	2352+67.60	9.92	34" x 24"	1	89.28	MATCH EX.
544	2355+64.29	8.65	34" x 24"	1	92.82	MATCH EX.
567	1351+92.70	39.83	34" x 24"	1	91.80	MATCH EX.
555	1405+65.54	-1.00	34" x 24"	1	99.15	92.90

DRAINAGE PIPE SCHEDULE

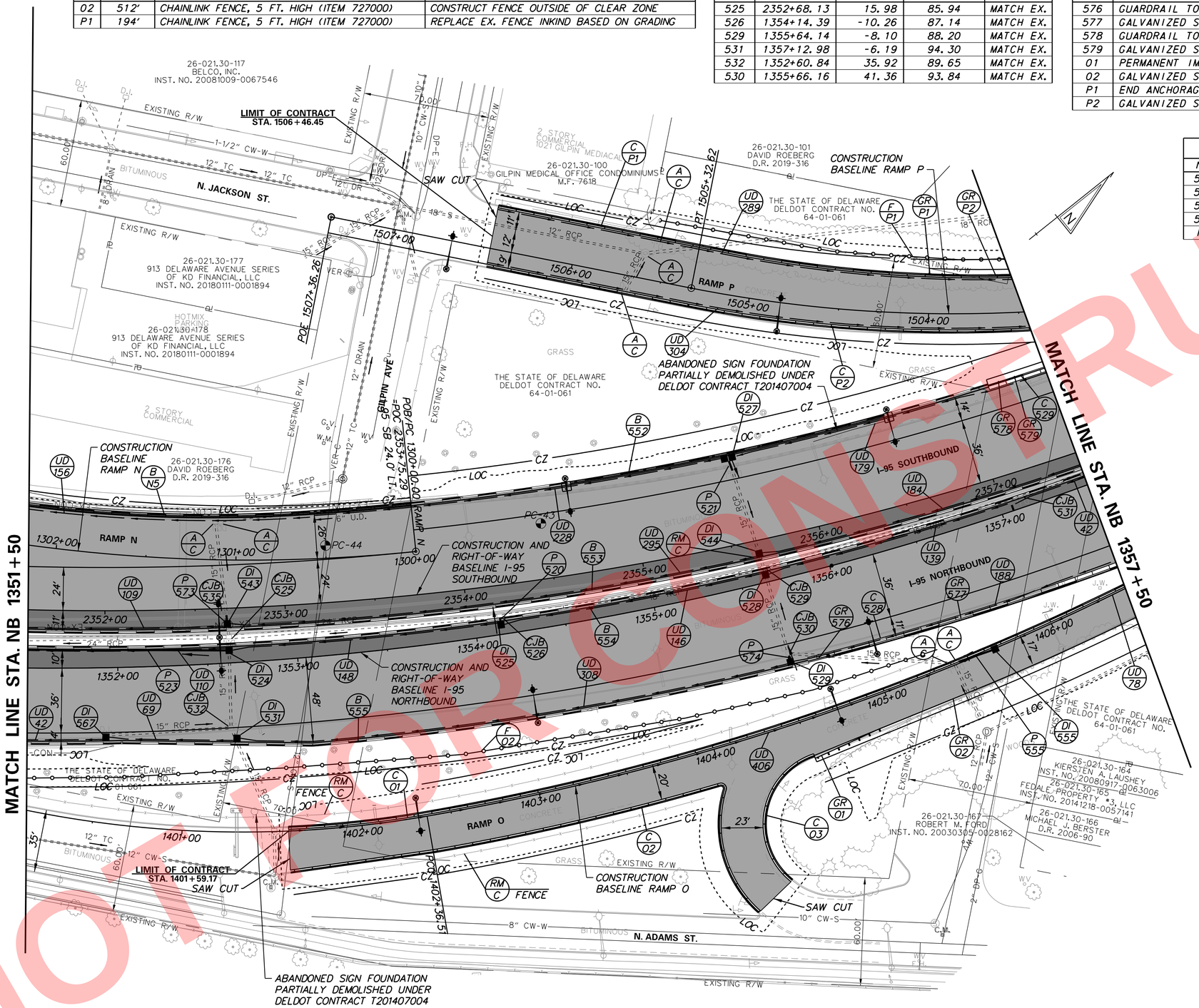
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
520	15" RCP	IV	2'	0.0100	83.83	83.81
521	15" RCP	IV	8'	0.0166	86.51	86.38
523	24" RCP	IV	147'	0.0091	82.54	81.20
555	15" RCP	IV	20'	0.0111	92.90	92.68
573	15" RCP	IV	7'	0.0040	82.73	82.70
574	15" RCP	IV	2'	0.0100	91.14	91.12

ROADWAY CORE SCHEDULE

NO.	LOCATION	OFFSET	DESCRIPTION
PC-43	SB RT TURN	4.0' LT. EL	2.5" HMA, 10.5" PCC
PC-44	SB RT TURN	5.0' LT. EL	2.75" HMA, 10" PCC, 3.5" SC

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
528	I.P.C.C. CURB AND GUTTER, TYPE 1-4	179.21'
529	I.P.C.C. CURB AND GUTTER, TYPE 1-4	32.90'
P1	I.P.C.C. CURB AND GUTTER, TYPE 3-4	288.00'
P2	I.P.C.C. CURB AND GUTTER, TYPE 3-4	305.00'
01	I.P.C.C. CURB AND GUTTER, TYPE 3-4	486.00'
02	I.P.C.C. CURB AND GUTTER, TYPE 3-4	323.00'
03	I.P.C.C. CURB AND GUTTER, TYPE 3-4	88.00'



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-759
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-30

SECTION: WRA

SHEET NO. 81

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
587	GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE 31)	2361+14.54	-50.00'	11.50'
588	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	2360+97.25	-50.00'	17.41'
590	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	2357+46.70	-50.00'	41.57'
591	GUARDRAIL END TREATMENT, TYPE 3-31	2357+89.55	-50.00'	50.00'
592	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 3-31	1357+50.00	48.00'	42.11'
593*	END ANCHORAGE 31, DOUBLE FACE	1357+90.92	48.00'	12.50'
P3	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1500+05.14	14.00'	345.00'
03	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	1406+43.71	17.00'	233.00'
04	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 31)	1408+68.18	18.50'	20.00'

*SEE DRAWING DT-13

BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
556	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	118.00'
557	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	82.80'
558	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	118.26'
559	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	82.80'
560*	P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED	140.57'

*AT LIMITS OF BARRIER WHICH INTERFACE WITH TWO SEPARATE BRIDGE PARAPETS, P.C.C. SAFETY BARRIER SHALL BE TRANSITIONED FROM A 42" F SHAPE FACE TO THE TIE INTO THE BRIDGE PARAPET'S HEIGHT, WIDTH, AND SHAPE OVER A DISTANCE OF TWENTY FEET. BARRIER FACE TRANSITION SHALL BE EVENLY DISTRIBUTED AND ALL COSTS OF LABOR, MATERIALS, FORMWORK, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCIDENTAL TO THE APPLICABLE P.C.C. SAFETY BARRIER ITEM.

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
535	I.P.C.C. CURB AND GUTTER TYPE 1-4	41.58'
610	I.P.C.C. CURB AND GUTTER TYPE 1-2	44.31'
536	I.P.C.C. CURB AND GUTTER TYPE 1-4	55.66'
537	I.P.C.C. CURB AND GUTTER TYPE 3-4	28.92'
P3	I.P.C.C. CURB AND GUTTER TYPE 3-4	30.00'
P4	I.P.C.C. CURB AND GUTTER TYPE 3-4	345.00'
04	I.P.C.C. CURB AND GUTTER TYPE 3-4	14.00'
05	I.P.C.C. CURB AND GUTTER TYPE 3-2	42.00'

FENCE SCHEDULE

NO.	QTY.	DESCRIPTION	NOTES
P2	348'	CHAINLINK FENCE, 5 FT. HIGH (ITEM 727000)	REPLACE EX. FENCE INKIND BASED ON GRADING

DRAINAGE PIPE SCHEDULE

NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE (FT/FT)	INT. EL.	DIS. EL.
537	15" RCP	IV	144'	0.0130	94.88	93.01
550	15" RCP	IV	23'	0.0298	89.45	88.78
554	18" RCP	IV	9'	0.0100	90.33	90.24

DRAINAGE INLET SCHEDULE

NO.	STATION	OFFSET	BOX SIZE	GRATE	T.G. EL.	INV. EL.
545	1358+63.84	-4.30	34" x 24"	1	97.15	MATCH EX.
546	1360+11.20	-4.29	34" x 24"	1	98.68	94.88
550	1502+74.57	18.76	72" x 24"	1	92.95	89.45
554	1503+17.91	-9.00	34" x 24"	1	93.83	90.33

ROADWAY CORE SCHEDULE

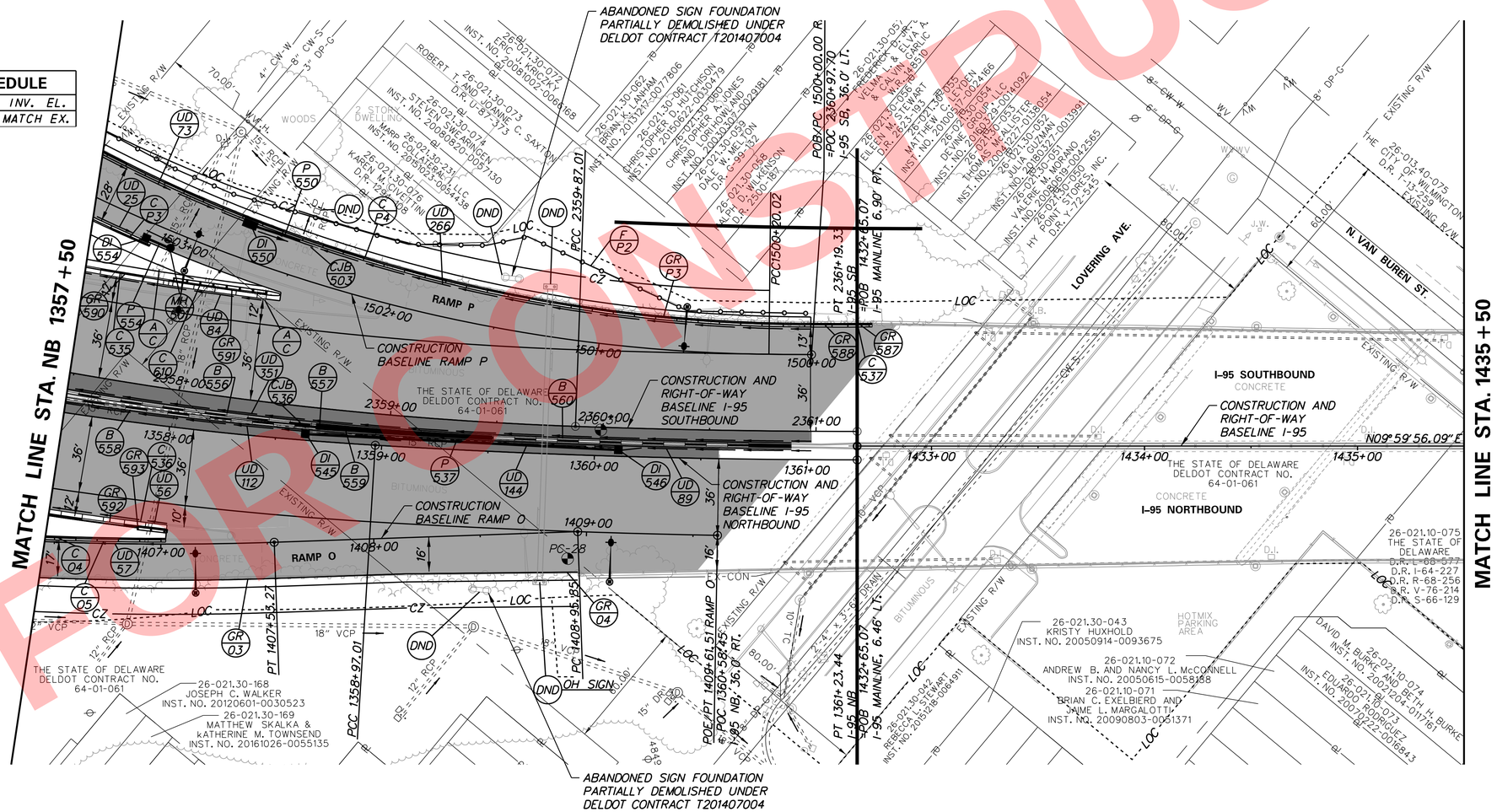
NO.	LOCATION	OFFSET	DESCRIPTION
PC-28	NB RT TRVL	1.0' LT. EL	2.5" HMA, 11.5" PCC, 3.75" SC
PC-31	SB LT SHLDR	1.0' LT. EL	6" HMA, 12" CR

MANHOLE SCHEDULE

NO.	STATION	OFFSET	TYPE/SIZE	T.G. EL.	INV. EL.
501	1503+05.64	-7.54	48" x 30"	93.76	85.57

CONVERT TO JUNCTION BOX SCHEDULE

NO.	STATION	OFFSET	T.C. EL.	INV. EL.
503	1502+46.46	16.81	91.22	MATCH EX.



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

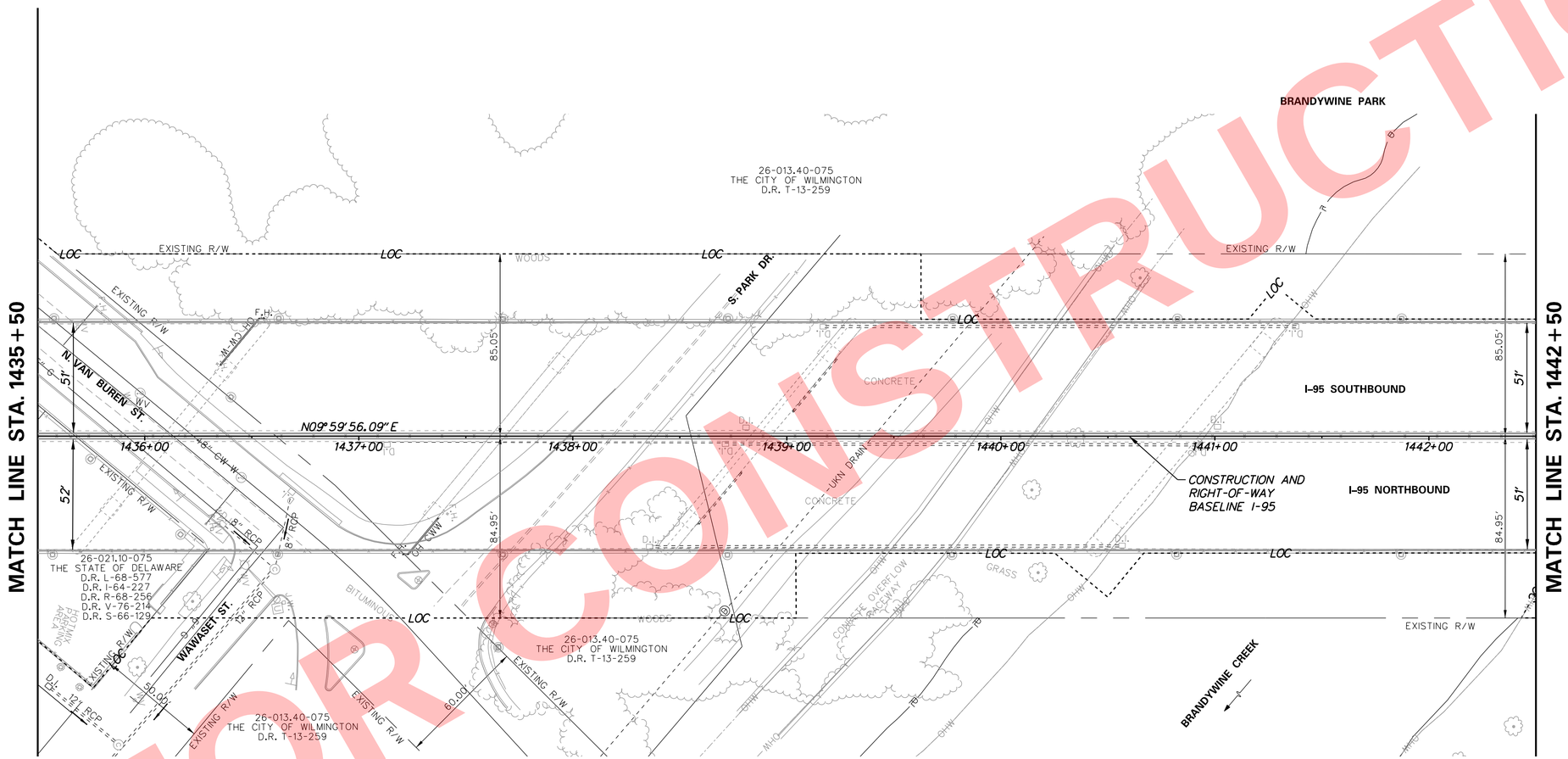
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-759
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-31
SECTION
WRA
SHEET NO.
82



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

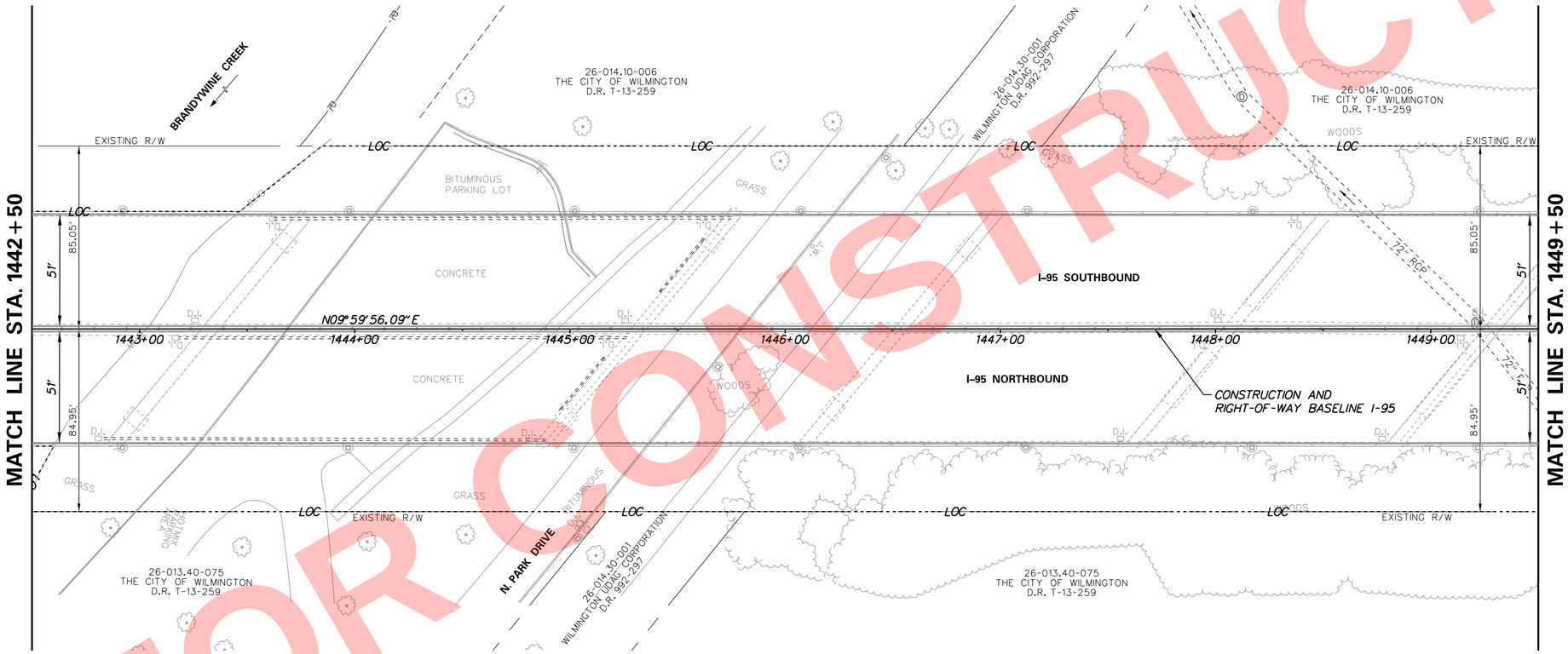
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-759
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-32
SECTION
WRA
SHEET NO.
83



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS		SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO. 1-759	CONSTRUCTION PLAN	CP-33
				COUNTY NEW CASTLE	DESIGNED BY: JAD		SECTION WRA
					CHECKED BY: BRT		SHEET NO. 84

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
598	GUARDRAIL TO BARRIER CONNECTION, APPROACH TYPE 1-31	2452+31.53	-47.36'	19.75'
599	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	2452+50.98	-47.58'	408.57

ROADWAY CORE SCHEDULE

NO.	LOCATION	OFFSET	DESCRIPTION
PC-9	NB RT SHLDR	4.5' RT. EL	16.5" HMA
PC-30	SB LT SHLDR	0.5' LT. EL	2" HMA, 8.5" PCC, 7.5+" CR

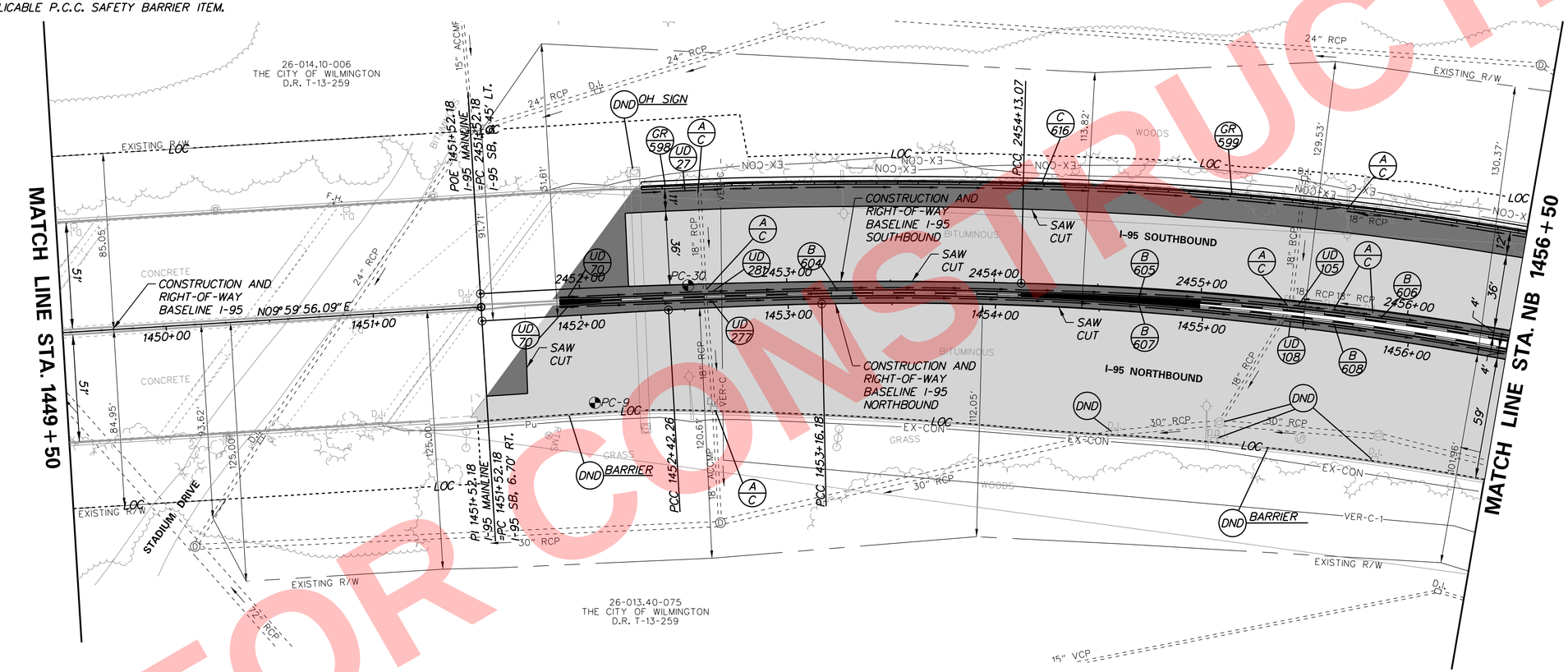
BARRIER SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
604*	P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE, BIFURCATED	225.27'
605	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	86.68'
606	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	149.62'
607	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	86.68'
608	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	149.22'

*AT LIMITS OF BARRIER WHICH INTERFACE WITH TWO SEPARATE BRIDGE PARAPETS, P.C.C. SAFETY BARRIER SHALL BE TRANSITIONED FROM A 42" F SHAPE FACE TO THE TIE INTO THE BRIDGE PARAPET'S HEIGHT, WIDTH, AND SHAPE OVER A DISTANCE OF TWENTY FEET. BARRIER FACE TRANSITION SHALL BE EVENLY DISTRIBUTED AND ALL COSTS OF LABOR, MATERIALS, FORMWORK, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCIDENTAL TO THE APPLICABLE P.C.C. SAFETY BARRIER ITEM.

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
616	I.P.C.C. CURB AND GUTTER, TYPE 3-4	428.32'



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

CONSTRUCTION PLAN

CP-34

SECTION	SHEET NO.
WRA	85

GUARDRAIL SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	BEGIN STA.	OFFSET	LENGTH
601	GALVANIZED STEEL BEAM GUARDRAIL, TYPE 1-31	2456+50	-48.00'	103.00'

BARRIER SCHEDULE

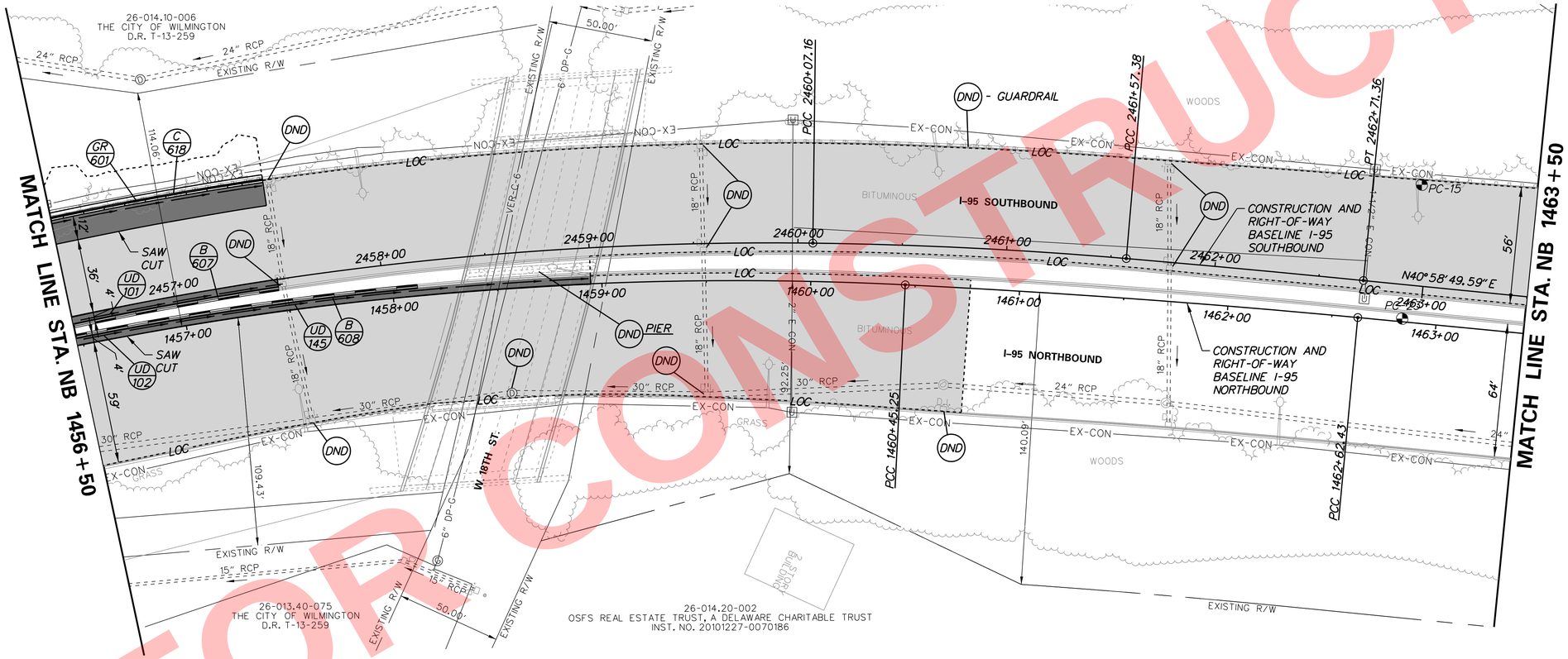
NO.	ITEM DESCRIPTION / TYPE	LENGTH
607	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	99.76'
608	P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42" TYPE 1	165.18'

ROADWAY CORE SCHEDULE

NO.	LOCATION	OFFSET	DESCRIPTION
PC-15	SB RT SHLDR	6.0' RT. EL	7.5" HMA, 8" CR
PC-23	NB LT SHLDR	1.5' LT. EL	1.75" HMA, 13" PCC, 1" STONE

CURB SCHEDULE

NO.	ITEM DESCRIPTION / TYPE	LENGTH
618	I.P.C.C. CURB AND GUTTER, TYPE 3-4	103.00'



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

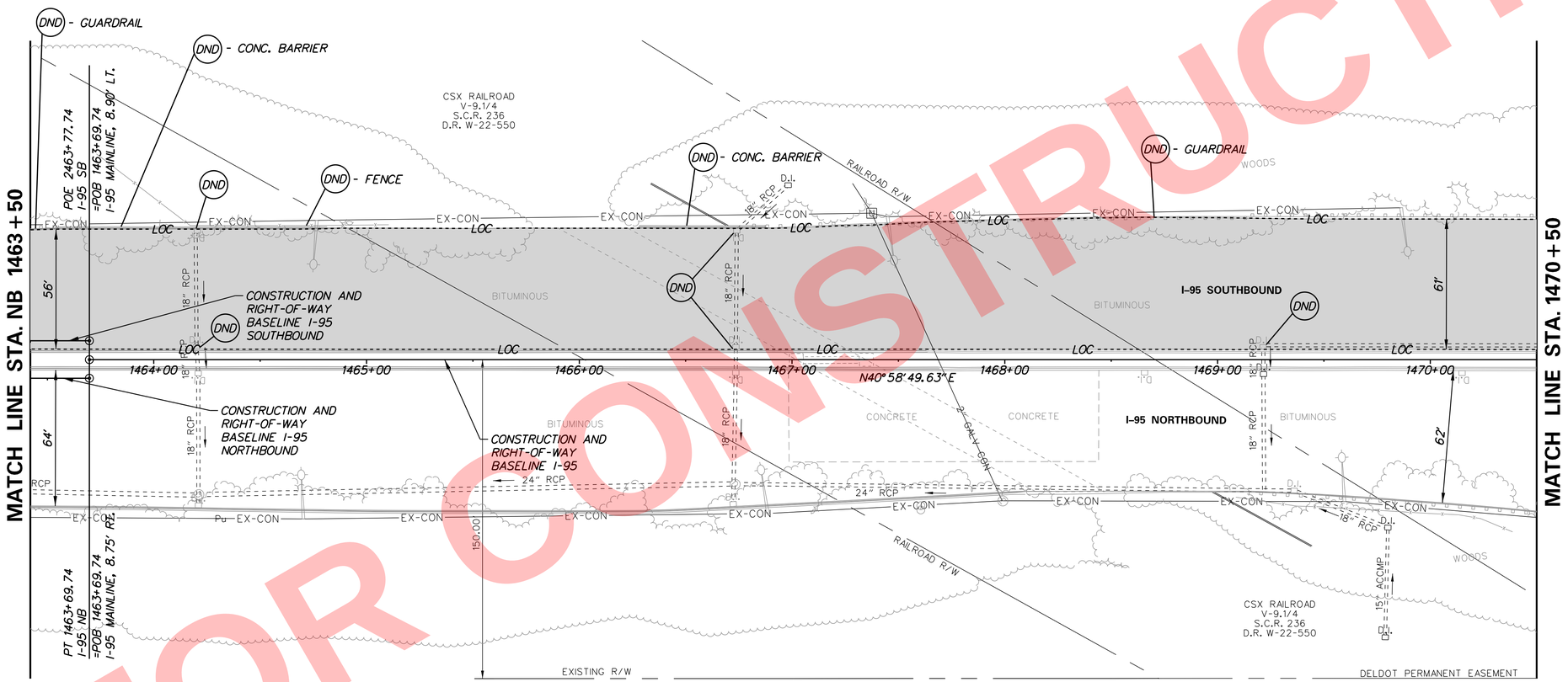
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-35
SECTION
WRA
SHEET NO.
86



NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	CONSTRUCTION PLAN	CP-36
T201407404	DESIGNED BY: JAD		SECTION WRA
COUNTY			SHEET NO.
NEW CASTLE	CHECKED BY: BRT		87

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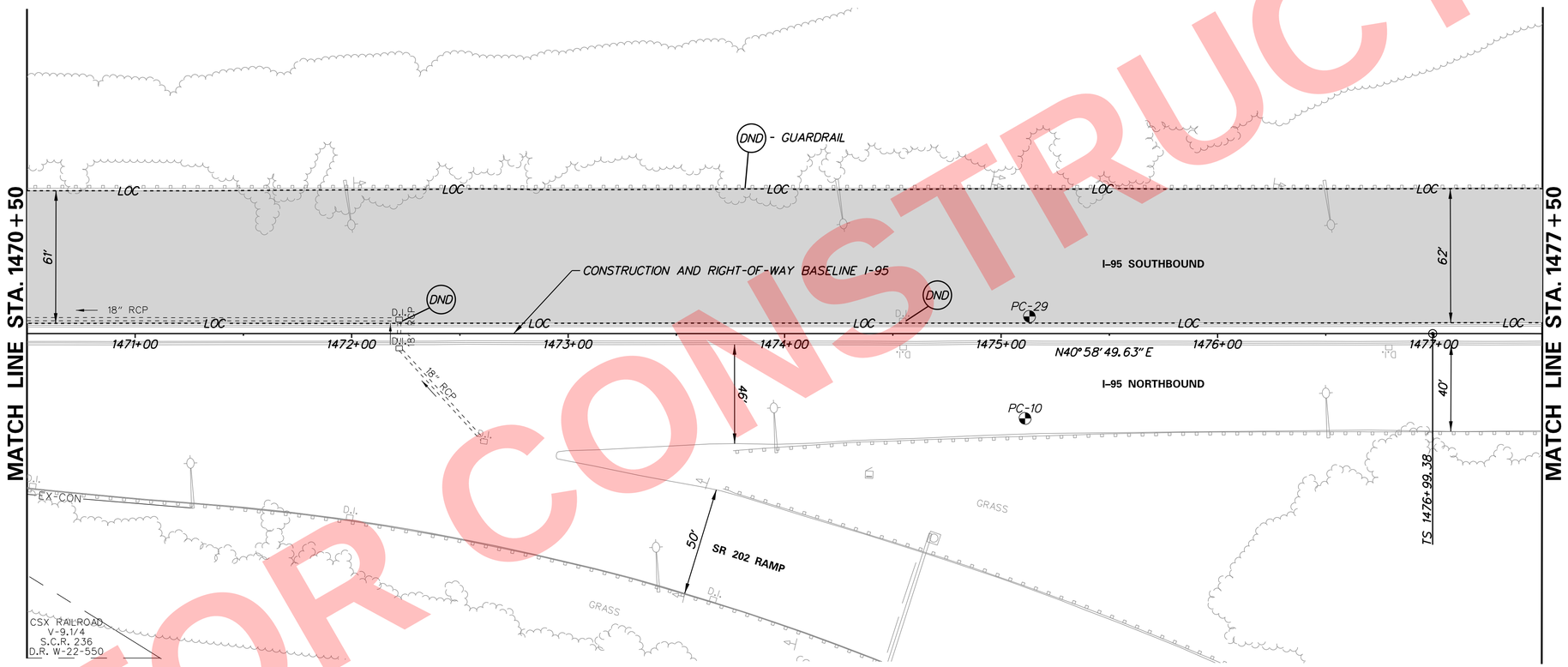
ROADWAY CORE SCHEDULE			
NO.	LOCATION	OFFSET	DESCRIPTION
PC-10	NB RT SHLDR	6.0' RT. EL	3" HMA, 12.5" PCC
PC-29	SB LT SHLDR	1.0' LT. EL	20" HMA



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

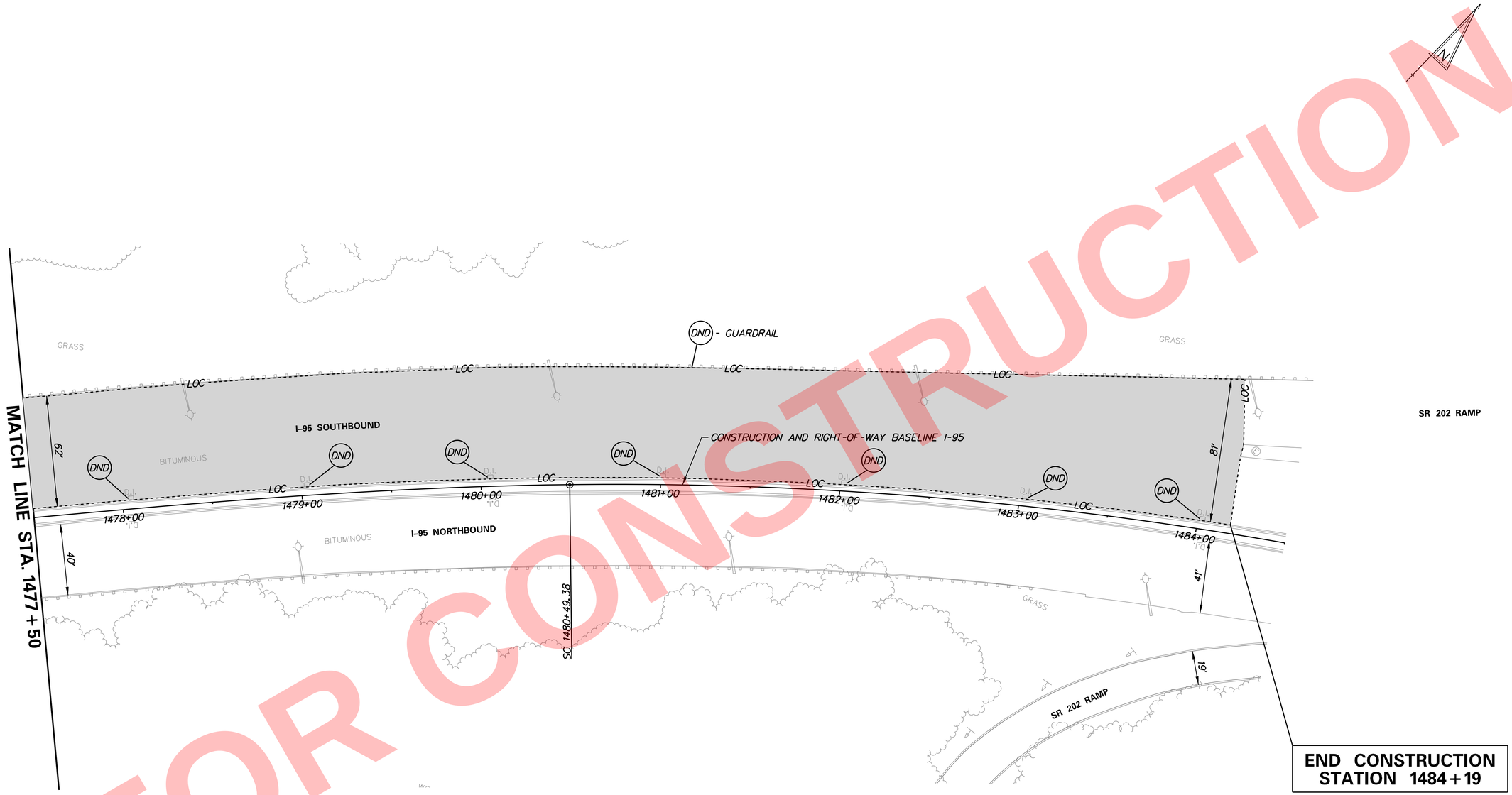
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-37
SECTION
WRA
SHEET NO.
88



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

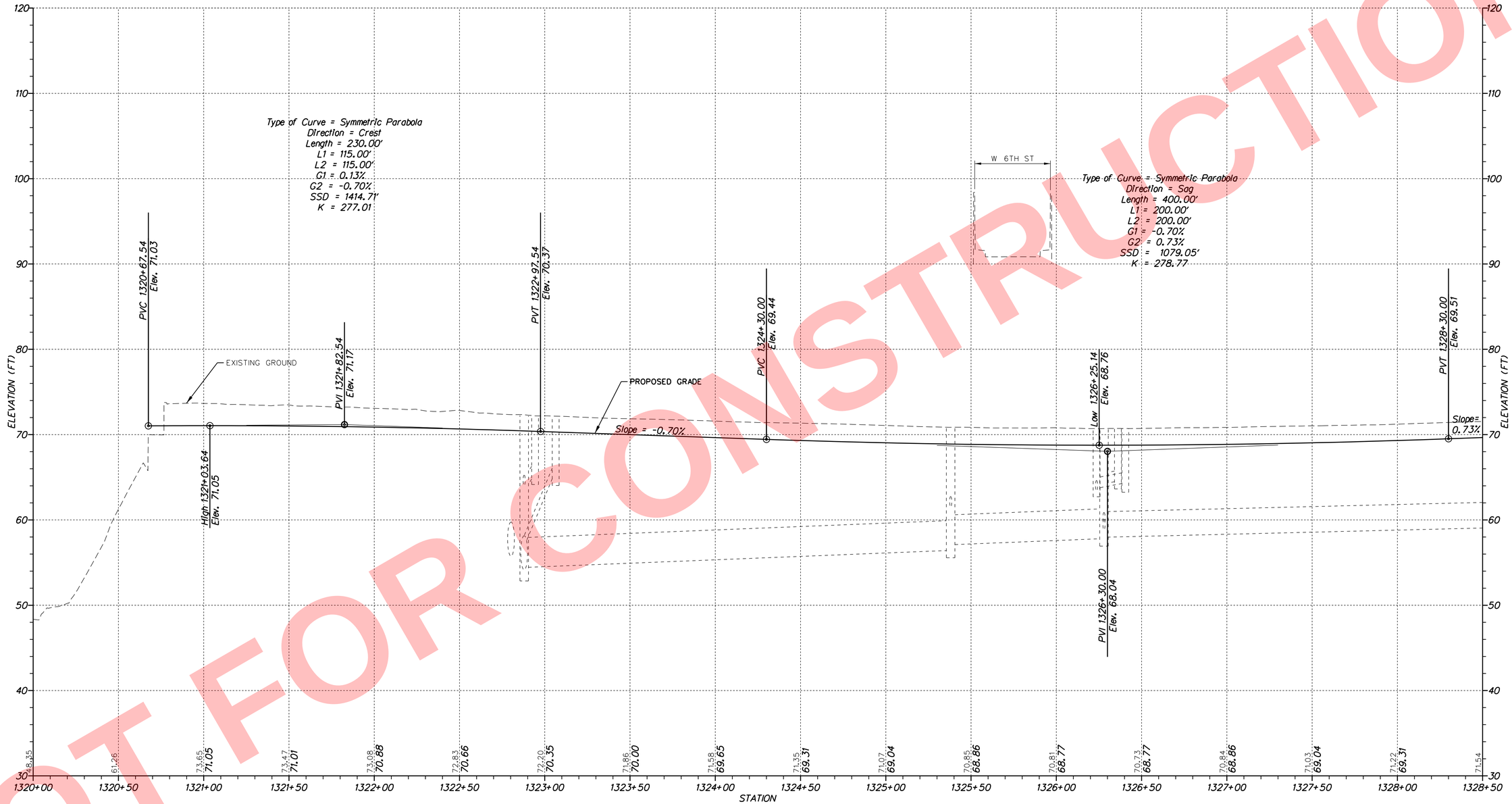
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION PLAN

CP-38
SECTION
WRA
SHEET NO.
89



I–95 NORTHBOUND

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

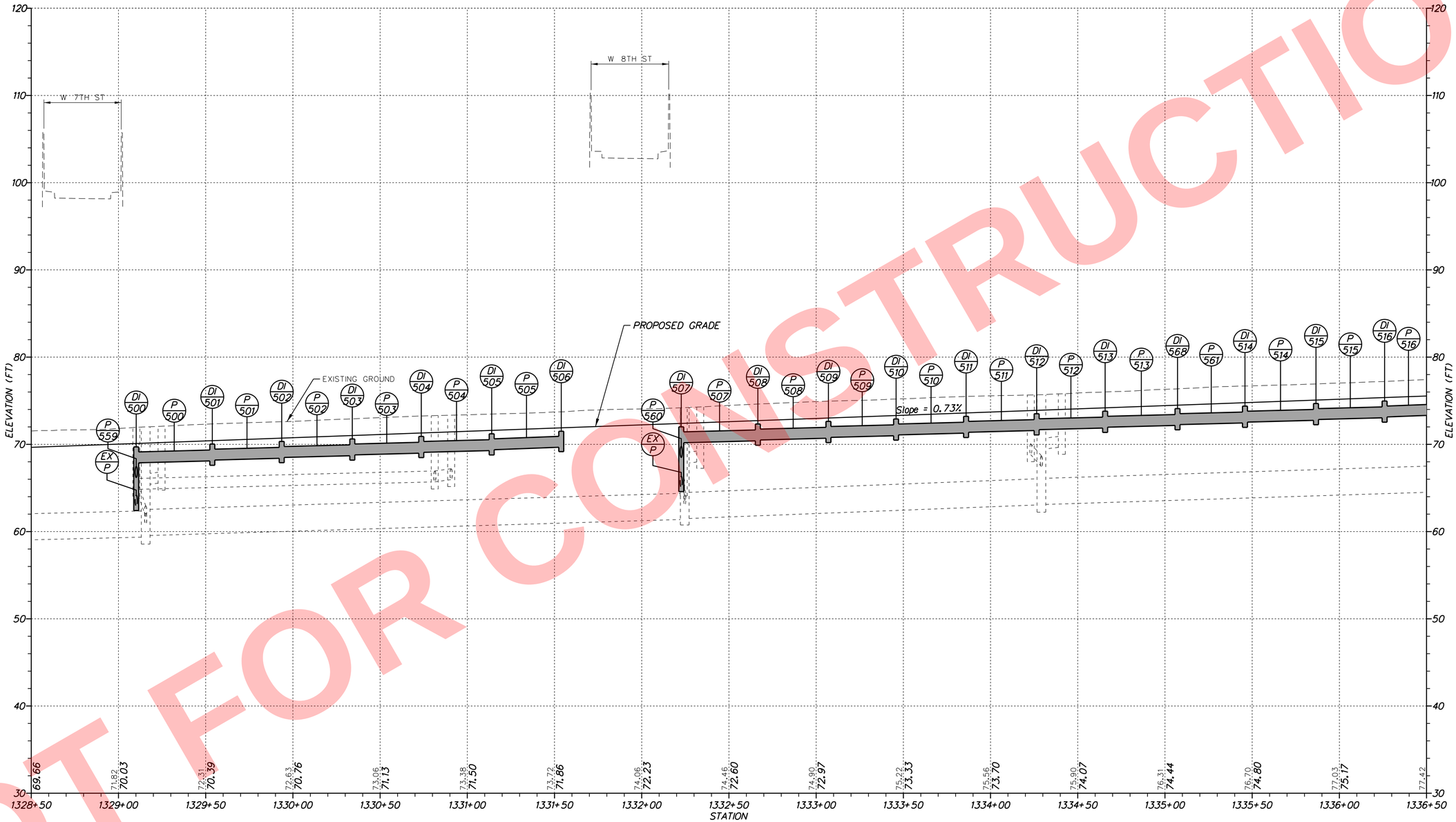
SCALE 0 30 60 90 FEET

REHABILITATION OF I–95 FROM I–495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1–748, 1–751
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF–01
SECTION
WRA
SHEET NO.
90



I–95 NORTHBOUND

VERTICAL SCALE FEET 18 12 6 0

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

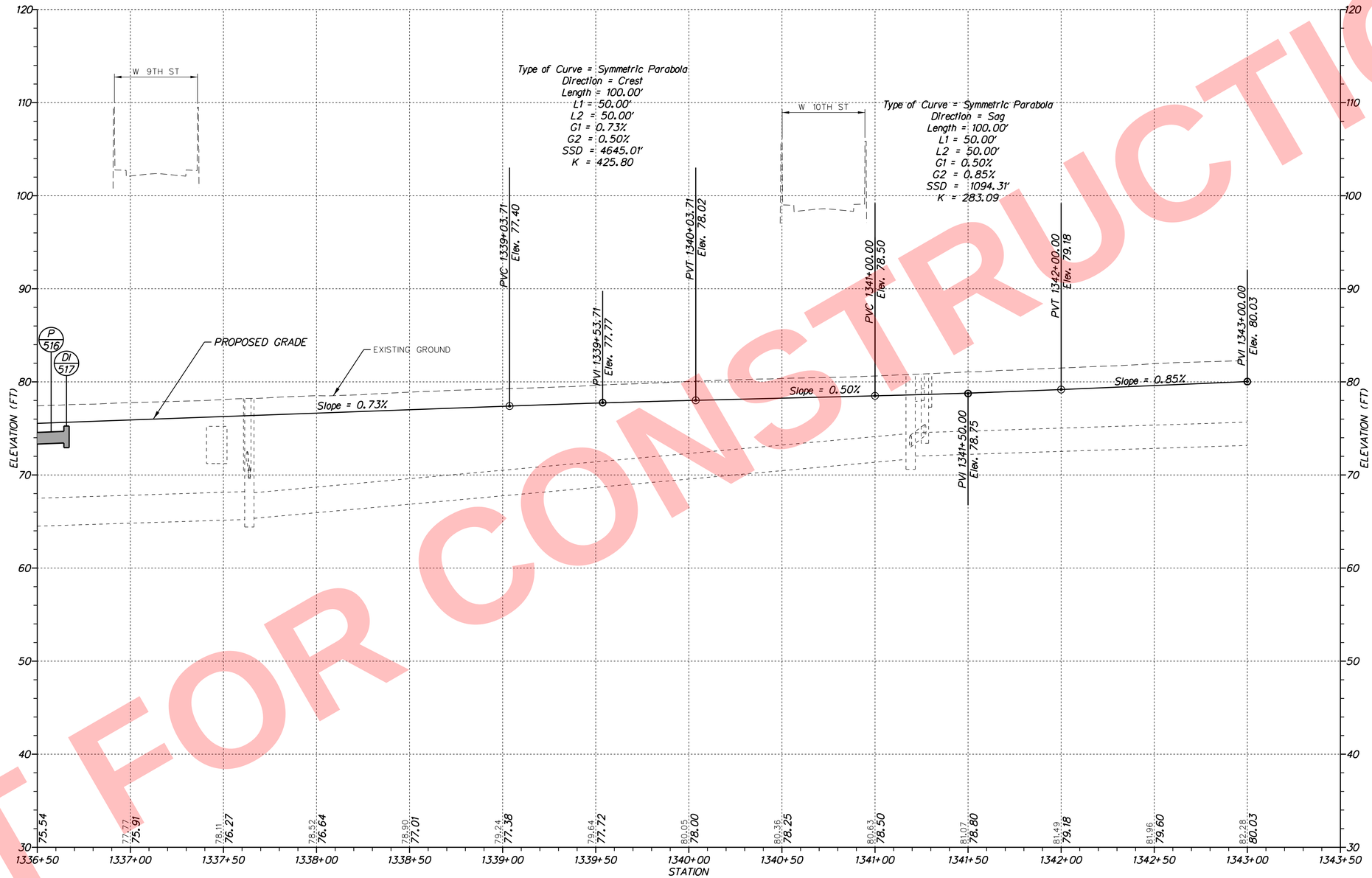
SCALE 0 30 60 90 FEET

REHABILITATION OF I–95 FROM I–495 TO NORTH OF BRANDYWINE RIVER BRIDGE

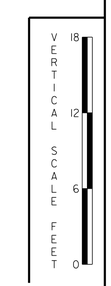
CONTRACT	BRIDGE NO.	1–752, 1–753
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF–02
SECTION
WRA
SHEET NO.
91



I–95 NORTHBOUND



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

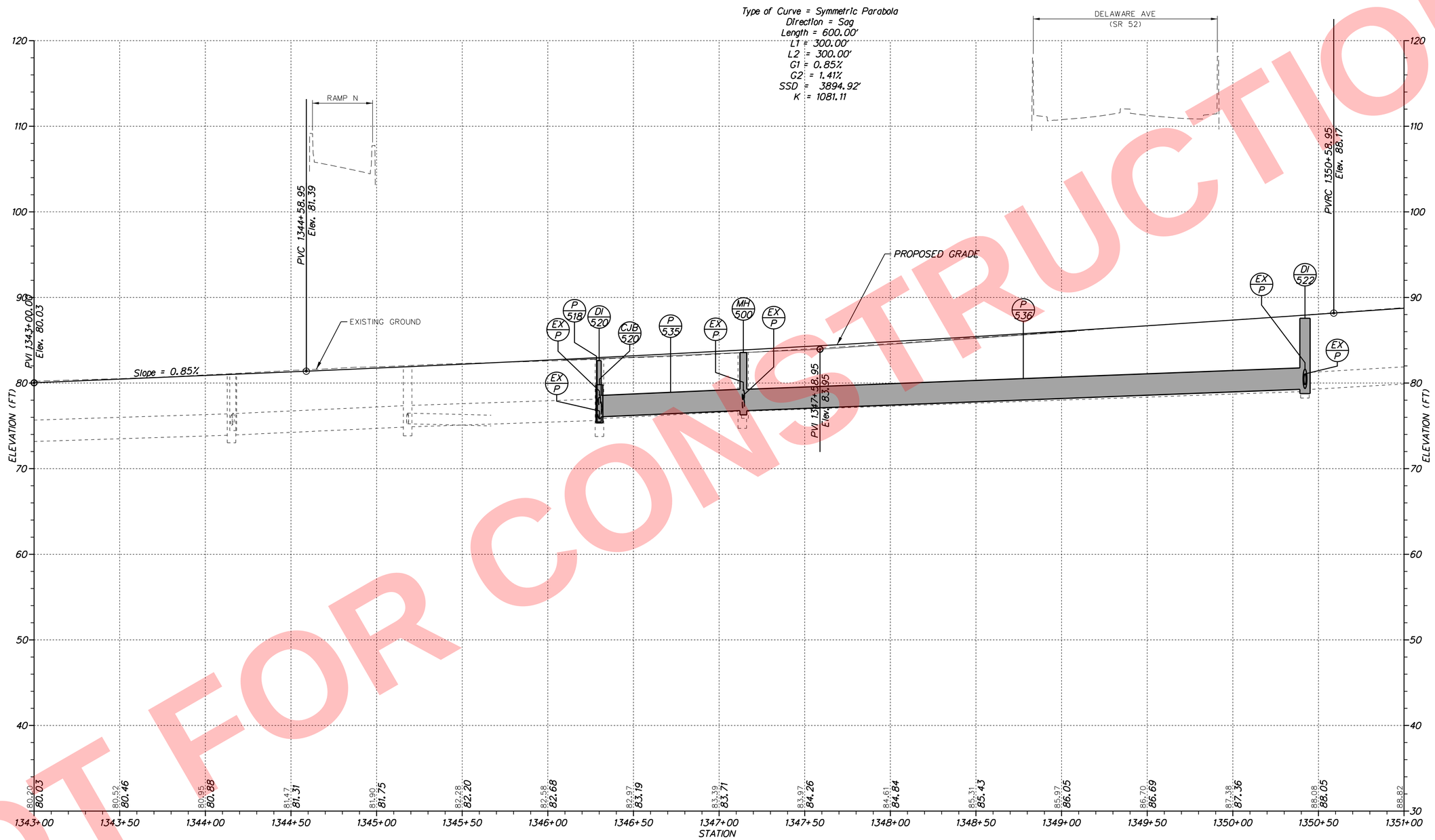
SCALE
0 30 60 90
FEET

REHABILITATION OF I–95 FROM I–495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1–754, 1–755
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF–03
SECTION
WRA
SHEET NO.
92



I–95 NORTHBOUND

VERTICAL SCALE FEET 18 12 6 0

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

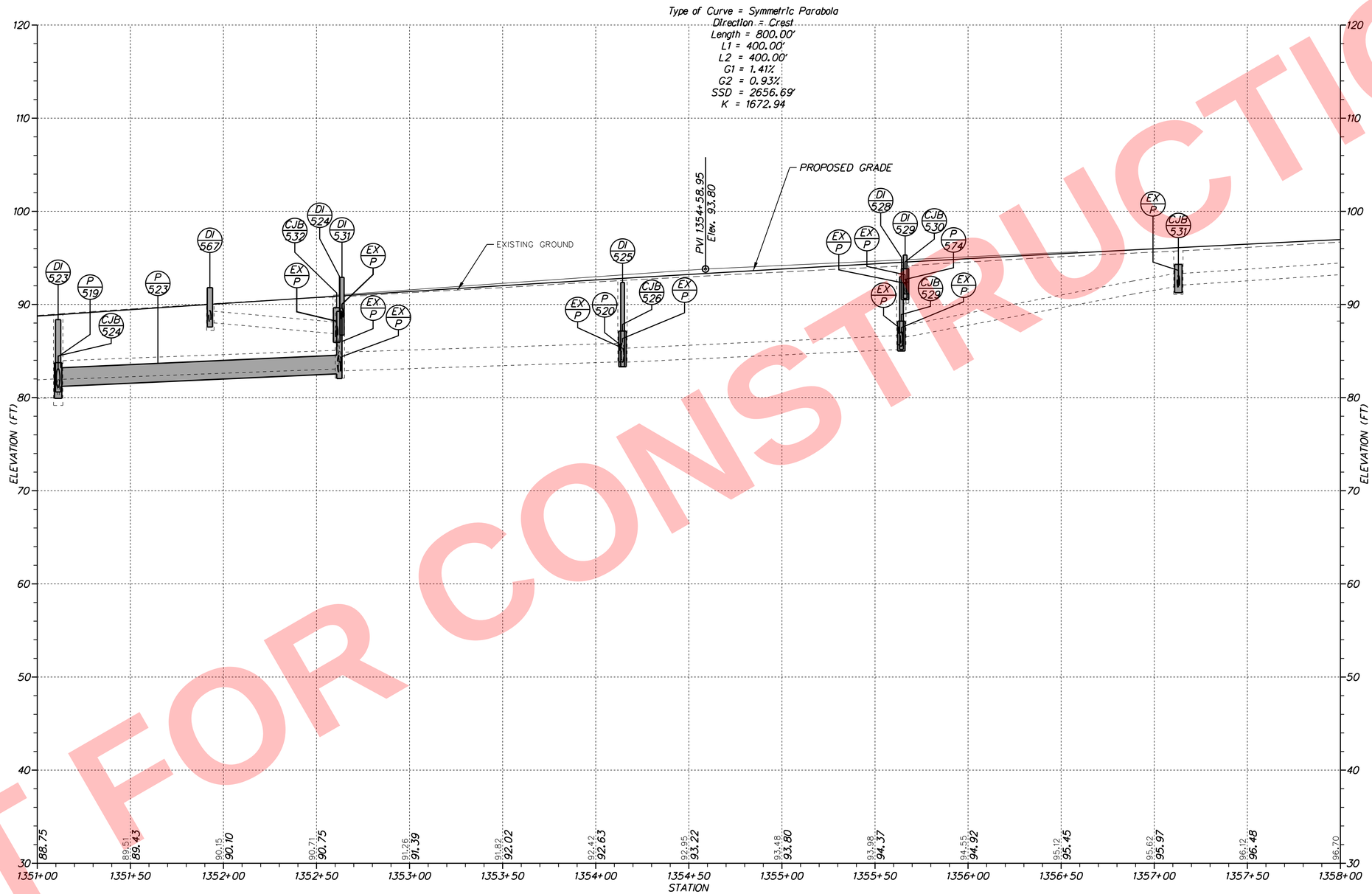
SCALE 0 30 60 90 FEET

REHABILITATION OF I–95 FROM I–495 TO NORTH OF BRANDYWINE RIVER BRIDGE

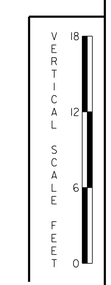
CONTRACT	BRIDGE NO.	1–756, 1–757
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF–04
SECTION
WRA
SHEET NO.
93



I-95 NORTHBOUND



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

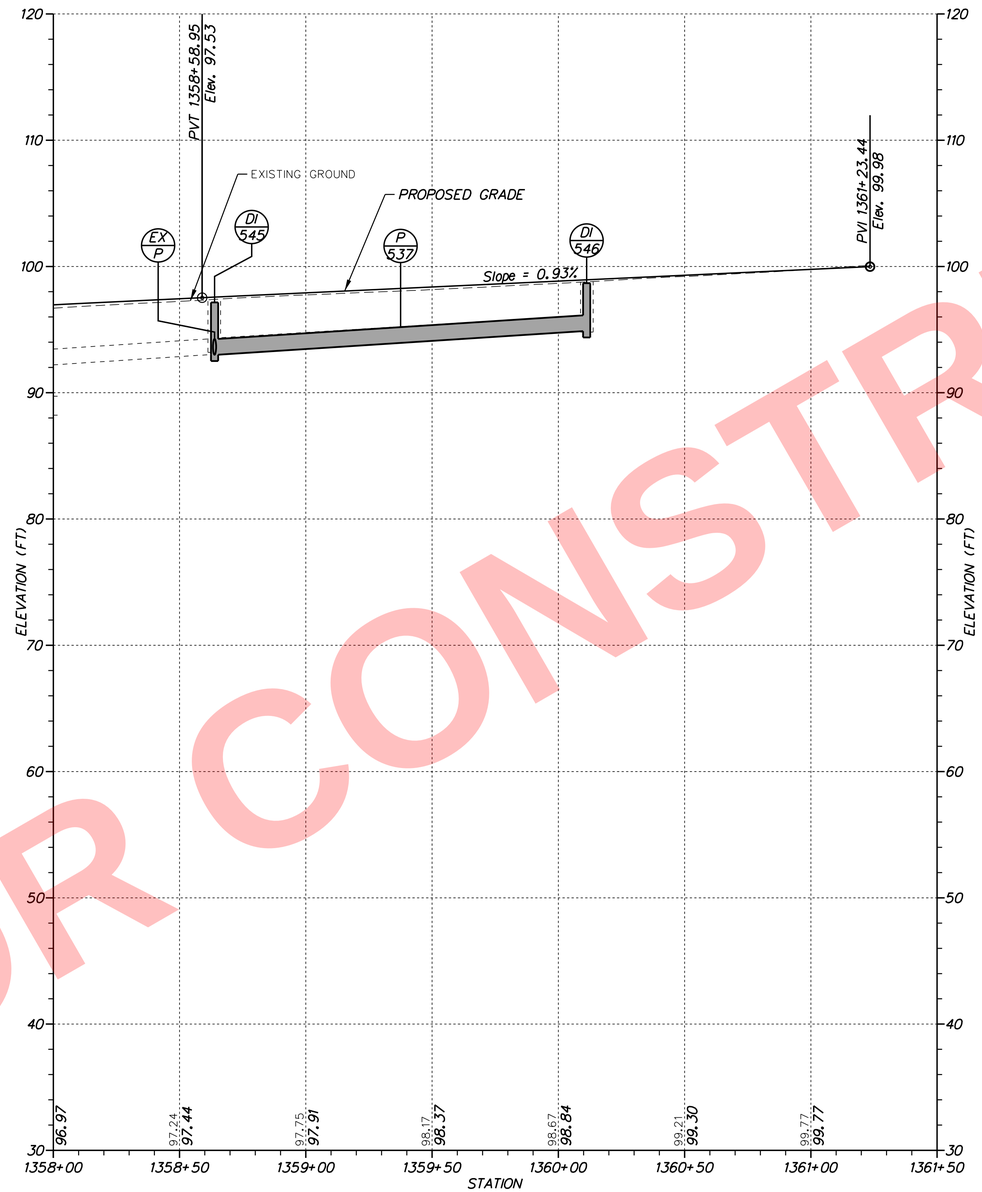
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF-05
SECTION
WRA
SHEET NO.
94



I–95 NORTHBOUND

VERTICAL SCALE FEET 18 12 6 0

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

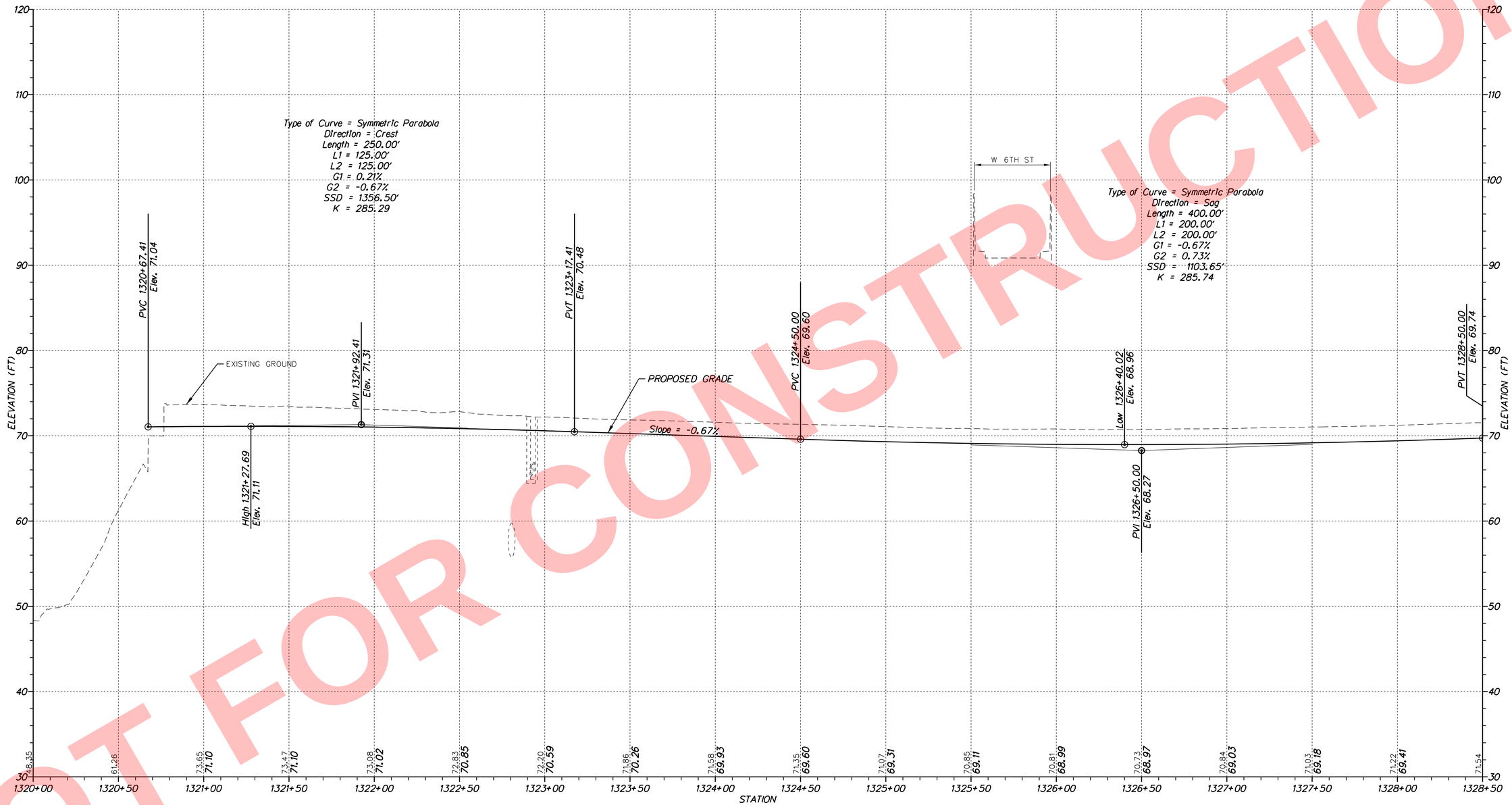
SCALE 0 30 60 90 FEET

REHABILITATION OF I–95 FROM I–495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1–759
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF–06
SECTION
WRA
SHEET NO.
95



I–95 SOUTHBOUND

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

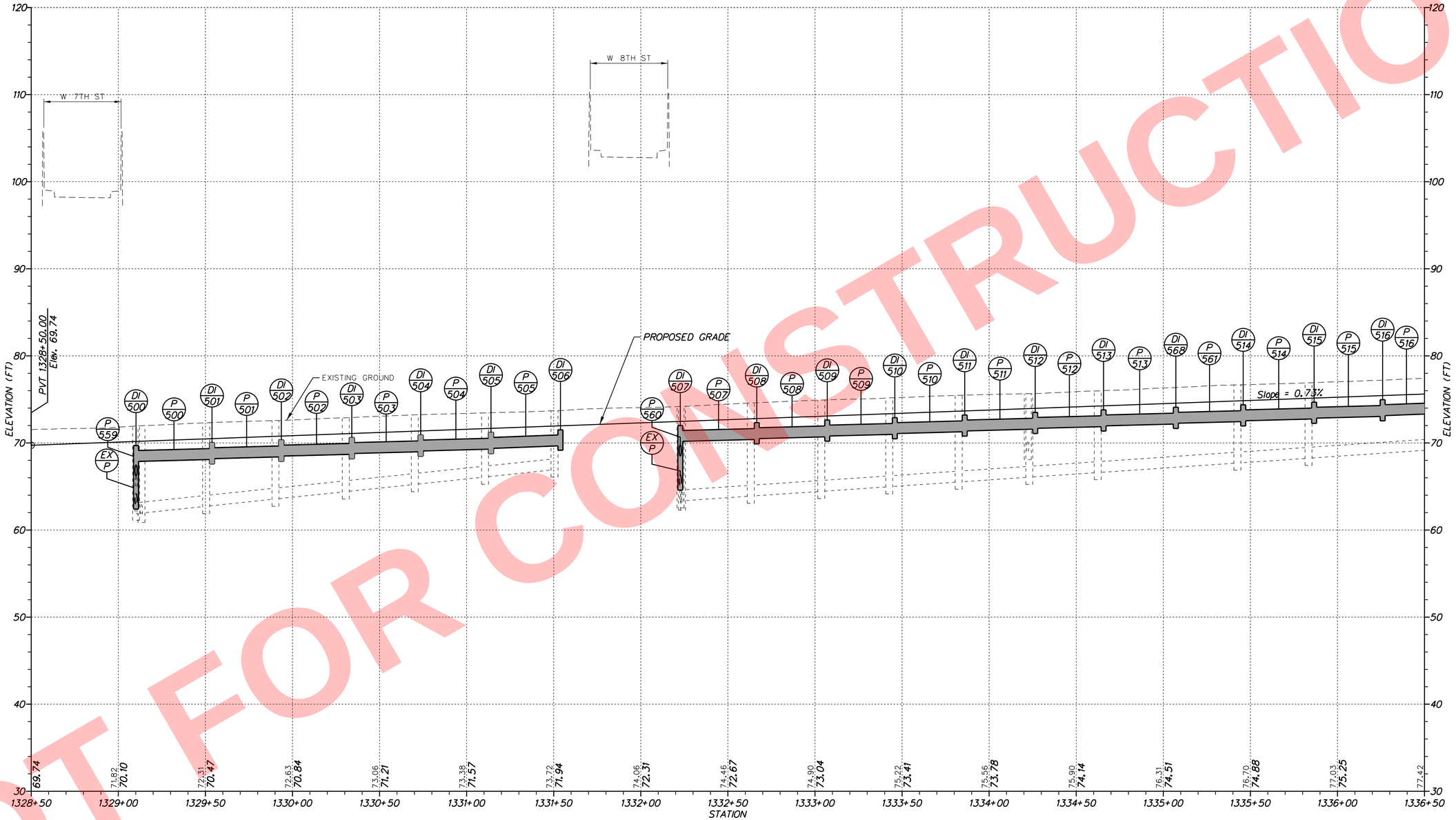
SCALE 0 30 60 90 FEET

REHABILITATION OF I–95 FROM I–495 TO NORTH OF BRANDYWINE RIVER BRIDGE

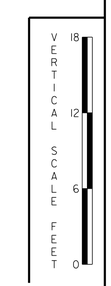
CONTRACT	BRIDGE NO.	1–748, 1–751
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF–07
SECTION
WRA
SHEET NO.
96



I–95 SOUTHBOUND



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

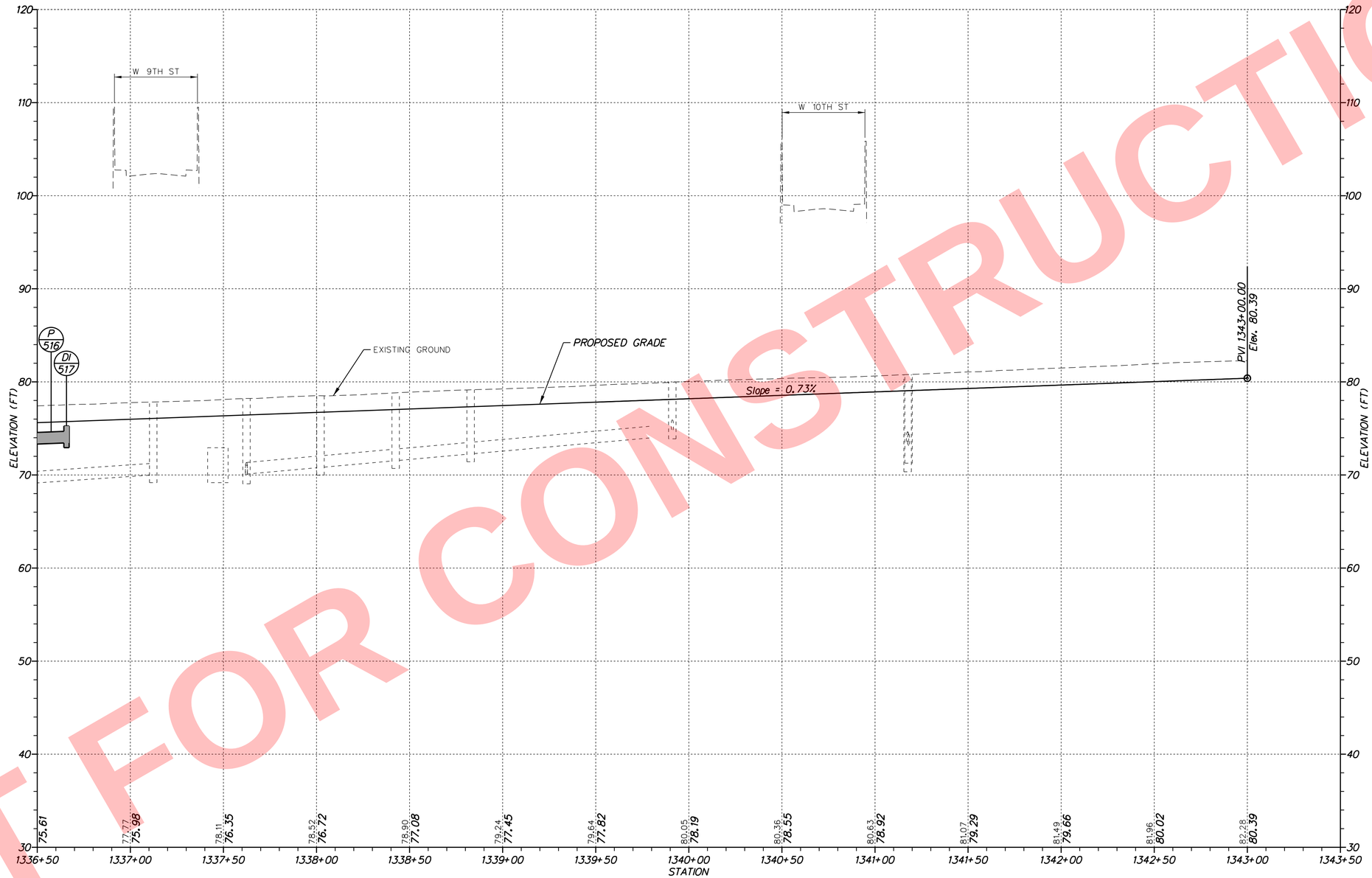
SCALE
0 30 60 90
FEET

REHABILITATION OF I–95 FROM I–495 TO NORTH OF BRANDYWINE RIVER BRIDGE

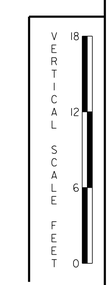
CONTRACT	BRIDGE NO.	1–752, 1–753
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF–08
SECTION
WRA
SHEET NO.
97



I–95 SOUTHBOUND



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

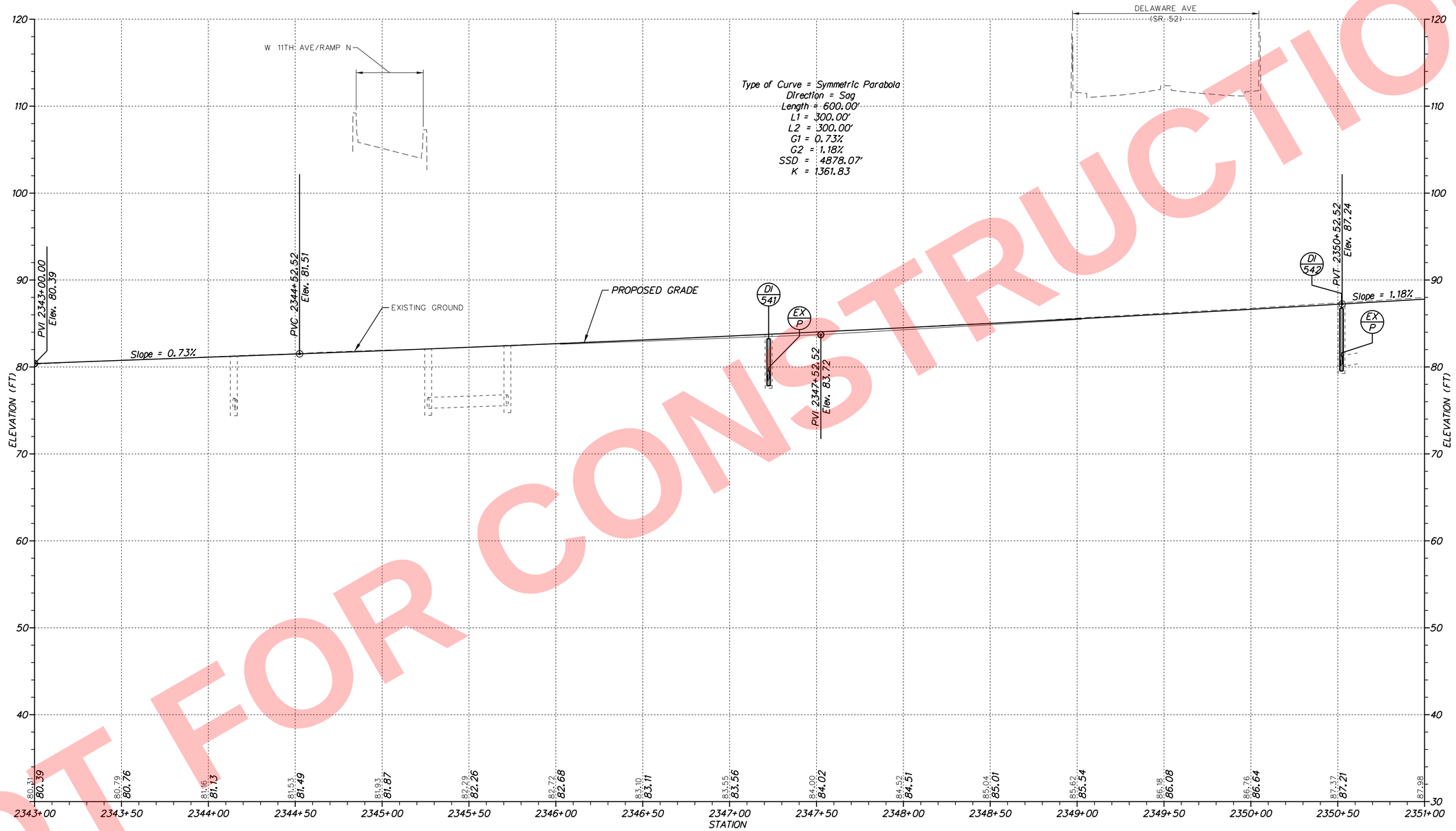
SCALE
0 30 60 90
FEET

REHABILITATION OF I–95 FROM I–495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1–754, 1–755
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF–09
SECTION
WRA
SHEET NO.
98



I-95 SOUTHBOUND

VERTICAL SCALE FEET 18 12 6 0

NOT FOR CONSTRUCTION

N:\31987-004\Contract_I-95\CADD\PF10.dgn
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ADDENDA / REVISIONS	

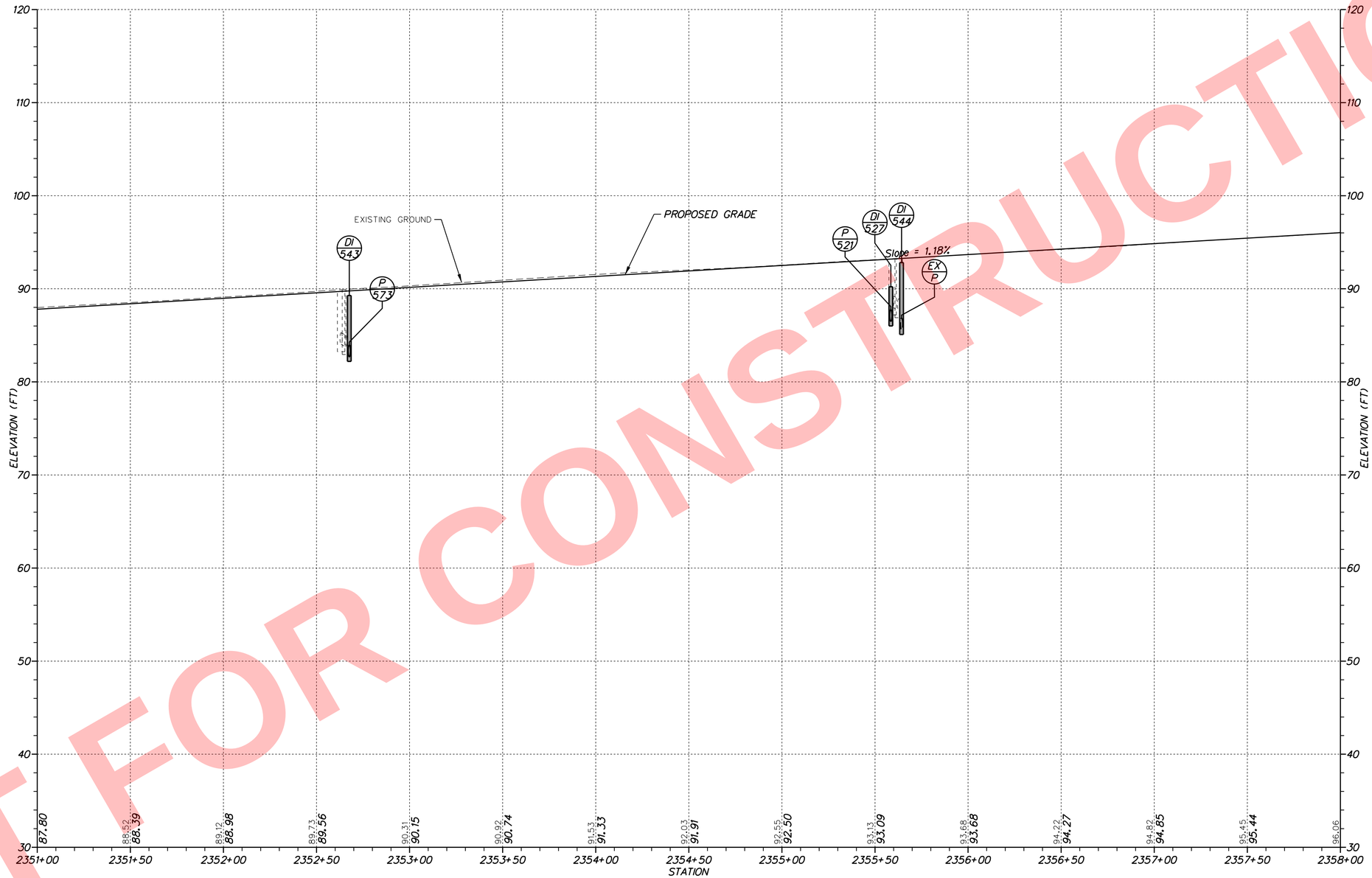
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

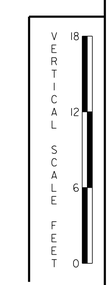
CONTRACT	BRIDGE NO.	1-756, 1-757
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF-10
SECTION
WRA
SHEET NO.
99



I–95 SOUTHBOUND



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

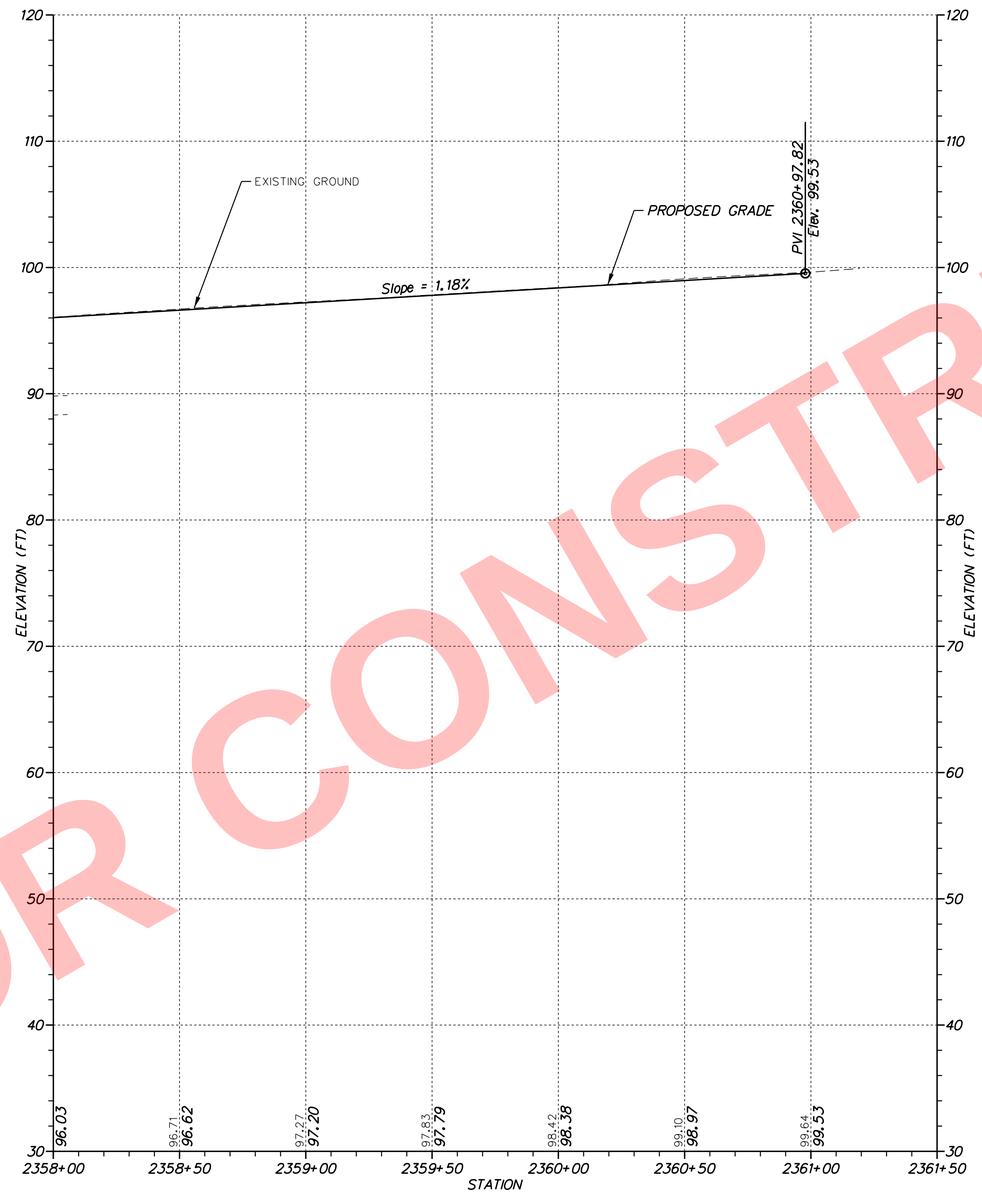
SCALE 0 30 60 90 FEET

REHABILITATION OF I–95 FROM I–495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF–11
SECTION
WRA
SHEET NO.
100



I-95 SOUTHBOUND

VERTICAL SCALE FEET 18 12 6 0

NOT FOR CONSTRUCTION

N:\31987-004\Contract_I-95\CADD\PF12.dgn
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ADDENDA / REVISIONS	

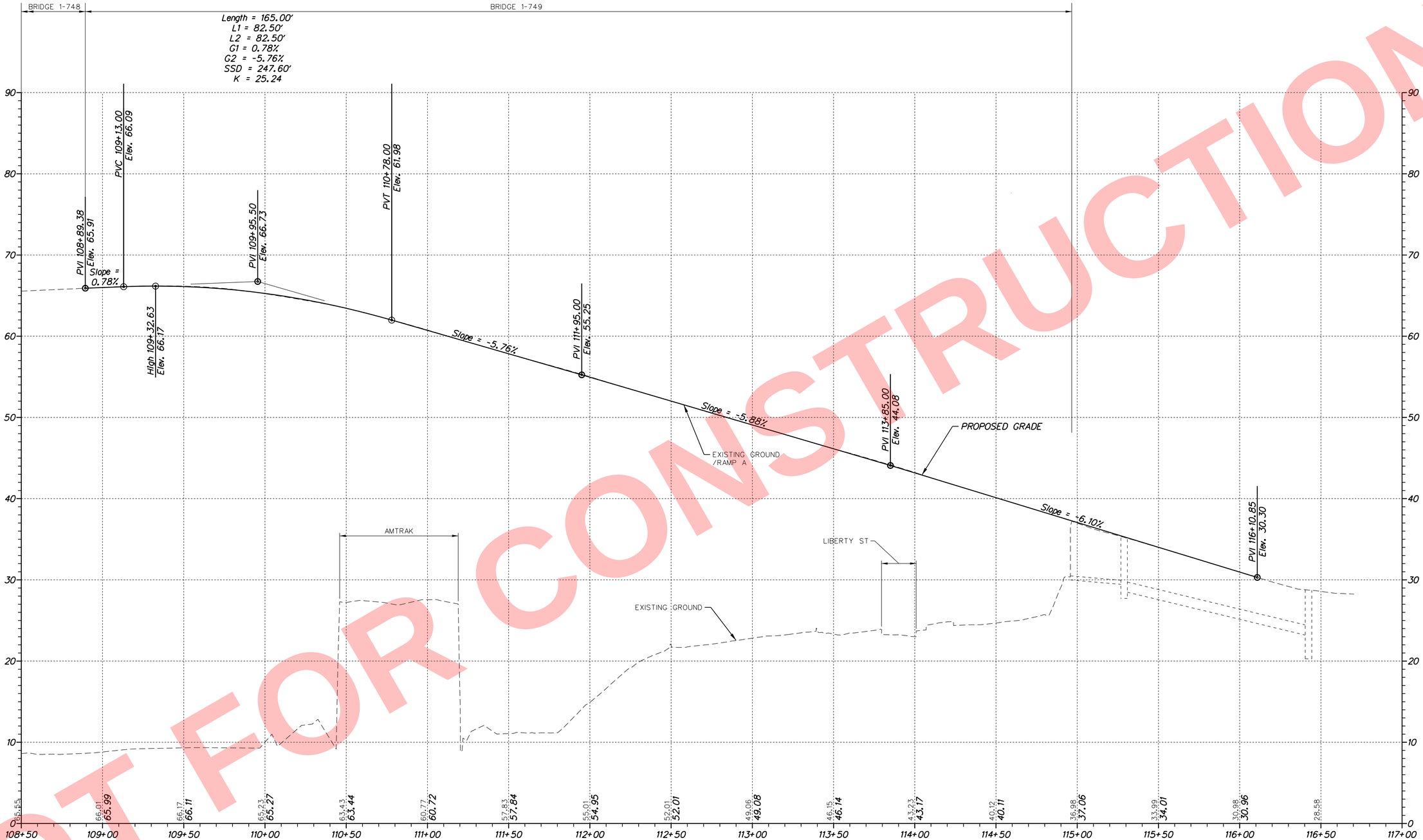
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-759
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF-12
SECTION
WRA
SHEET NO.
101



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NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

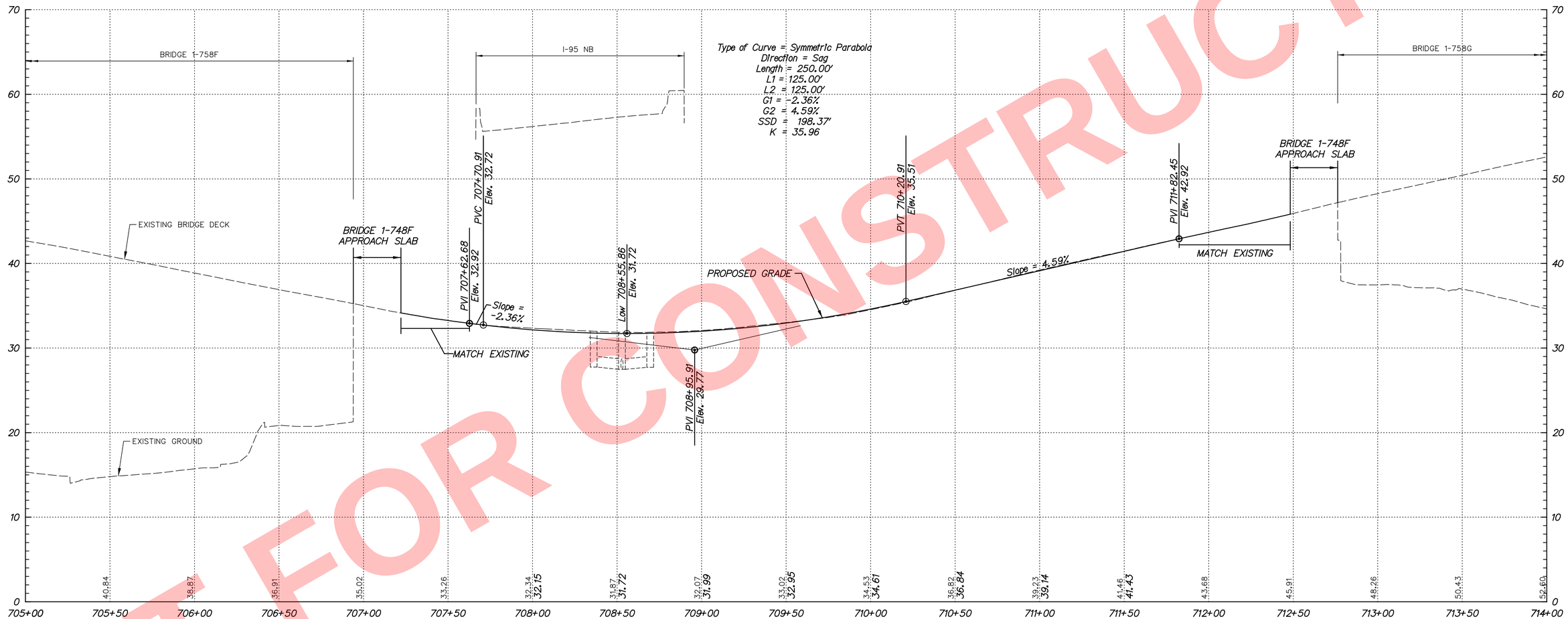
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-748, 1-749
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

PROFILE

PF-13
SECTION
WRA
SHEET NO.
102



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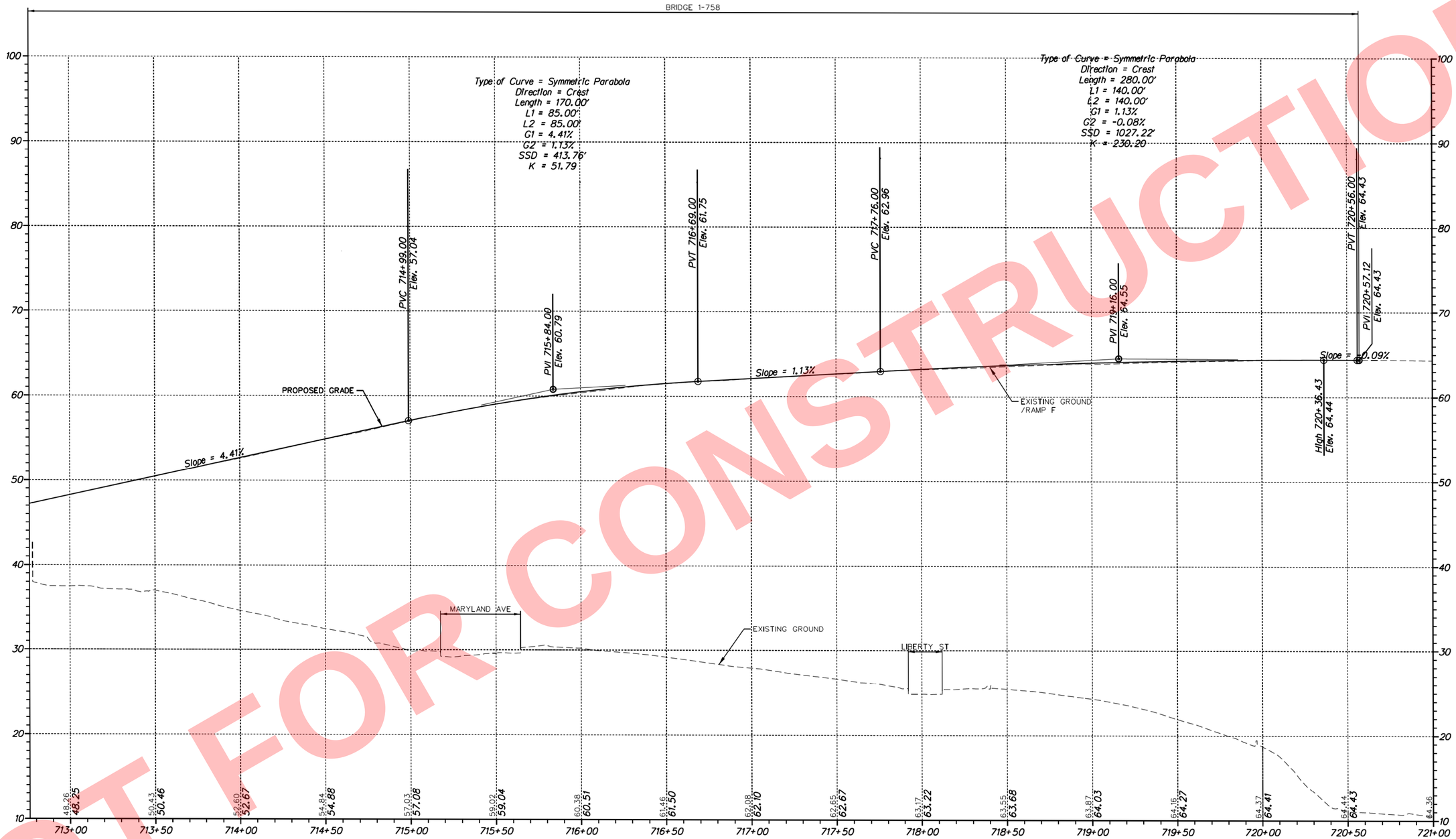
NOT FOR CONSTRUCTION

PF-16

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO. 1-758F 1-758G	PROFILE	SHEET NO. 1-105
				COUNTY NEW CASTLE	DESIGNED BY: DHW		TOTAL SHTS. 1-178
					CHECKED BY: PAH		



RAMP F

VERTICAL SCALE FEET 0 6 12 18

NOT FOR CONSTRUCTION

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2/11/2016 3:56:22 PM

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

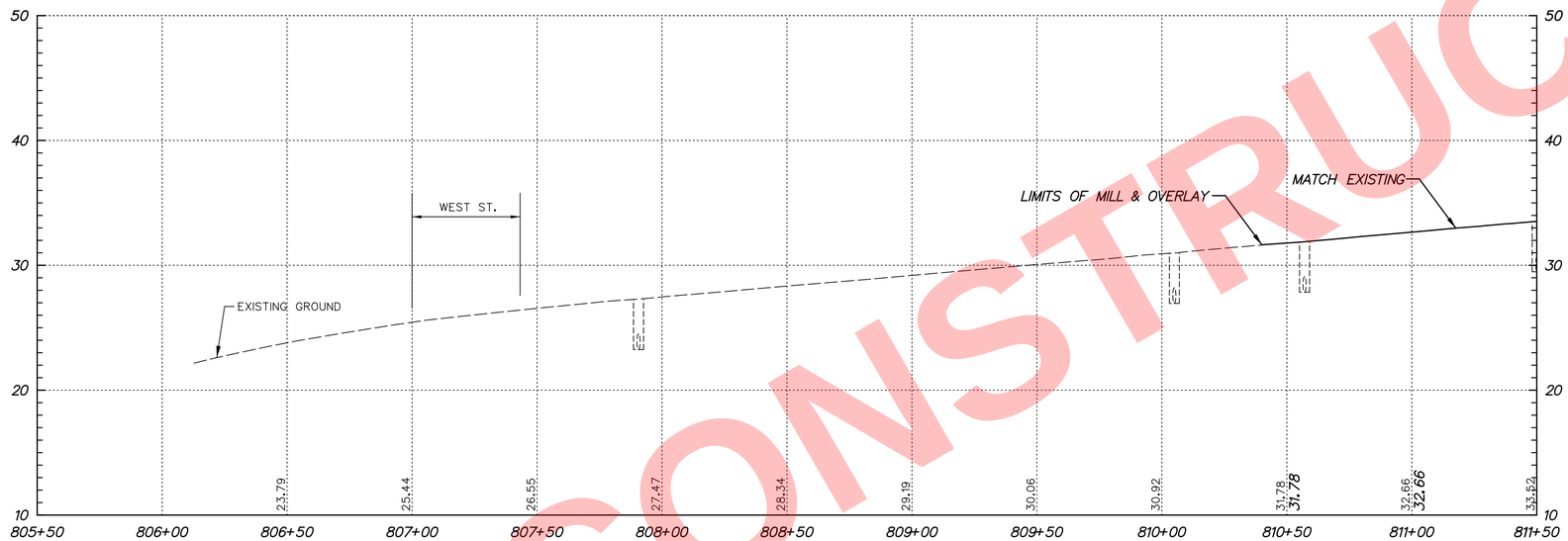
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

PROFILES

PF-17

SHEET NO.
1-106
TOTAL SHTS.
1 - 178



RAMP H

NOT FOR CONSTRUCTION

VERTICAL SCALE FEET 18 12 6 0

PF-18

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS	

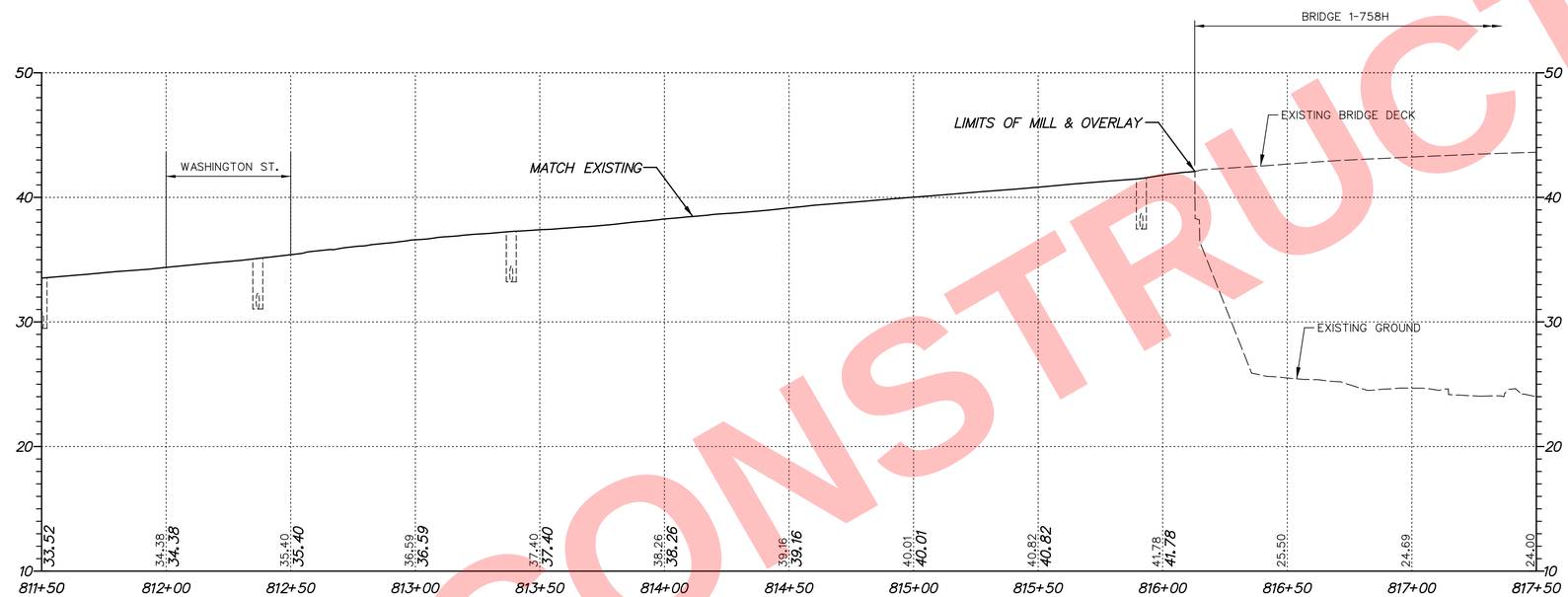
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	
NEW CASTLE	CHECKED BY: PAH

PROFILE

SHEET NO.
1-107
TOTAL SHTS.
1-178



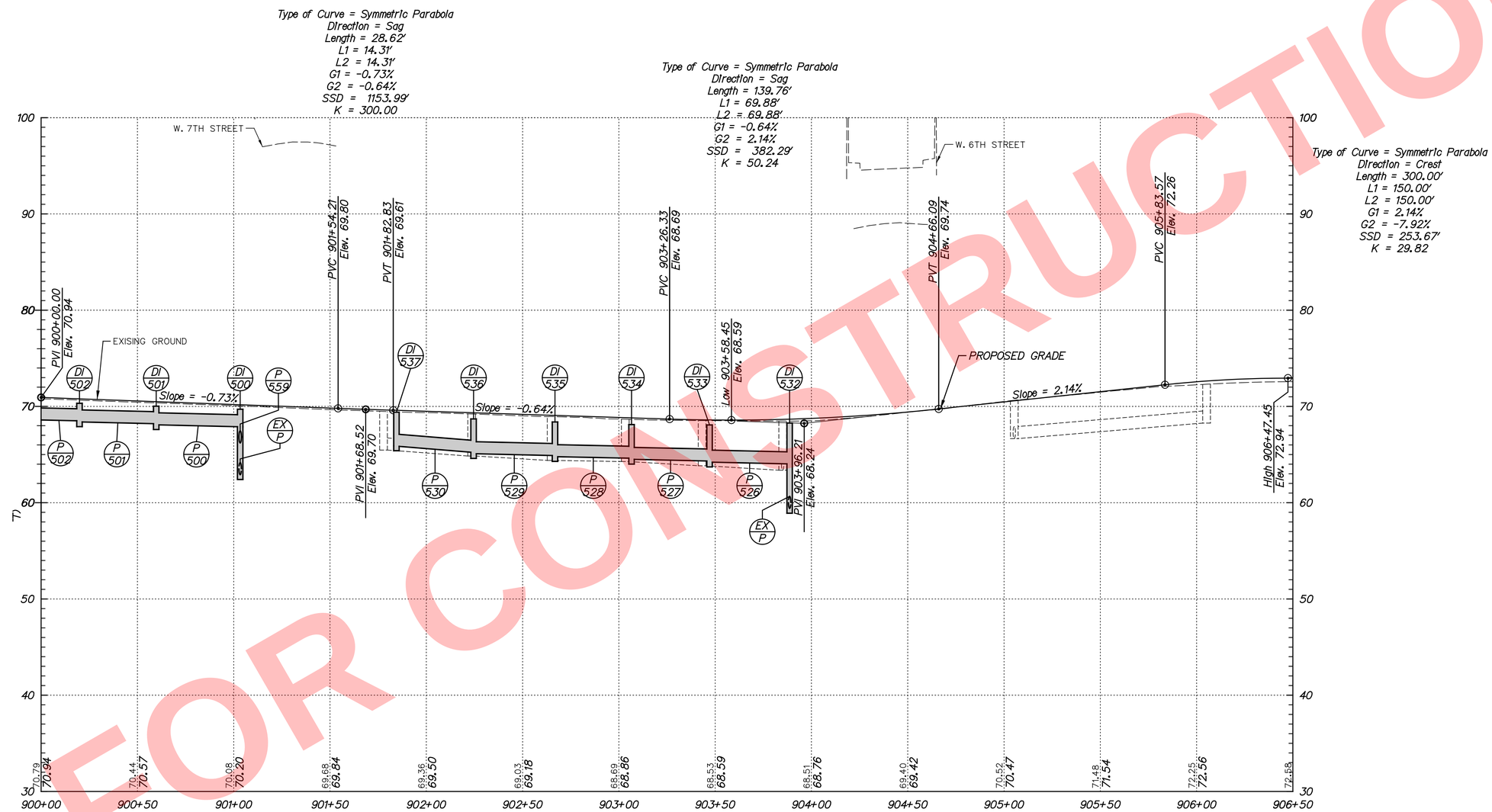
RAMP H

NOT FOR CONSTRUCTION

VERTICAL SCALE FEET 18 12 6 0

PF-19

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO. 1-758H	PROFILE	SHEET NO. 1-108
				COUNTY NEW CASTLE	DESIGNED BY: DHW		TOTAL SHTS. 1-178
					CHECKED BY: PAH		



RAMP J

VERTICAL SCALE FEET 18 12 6 0

PF-20

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

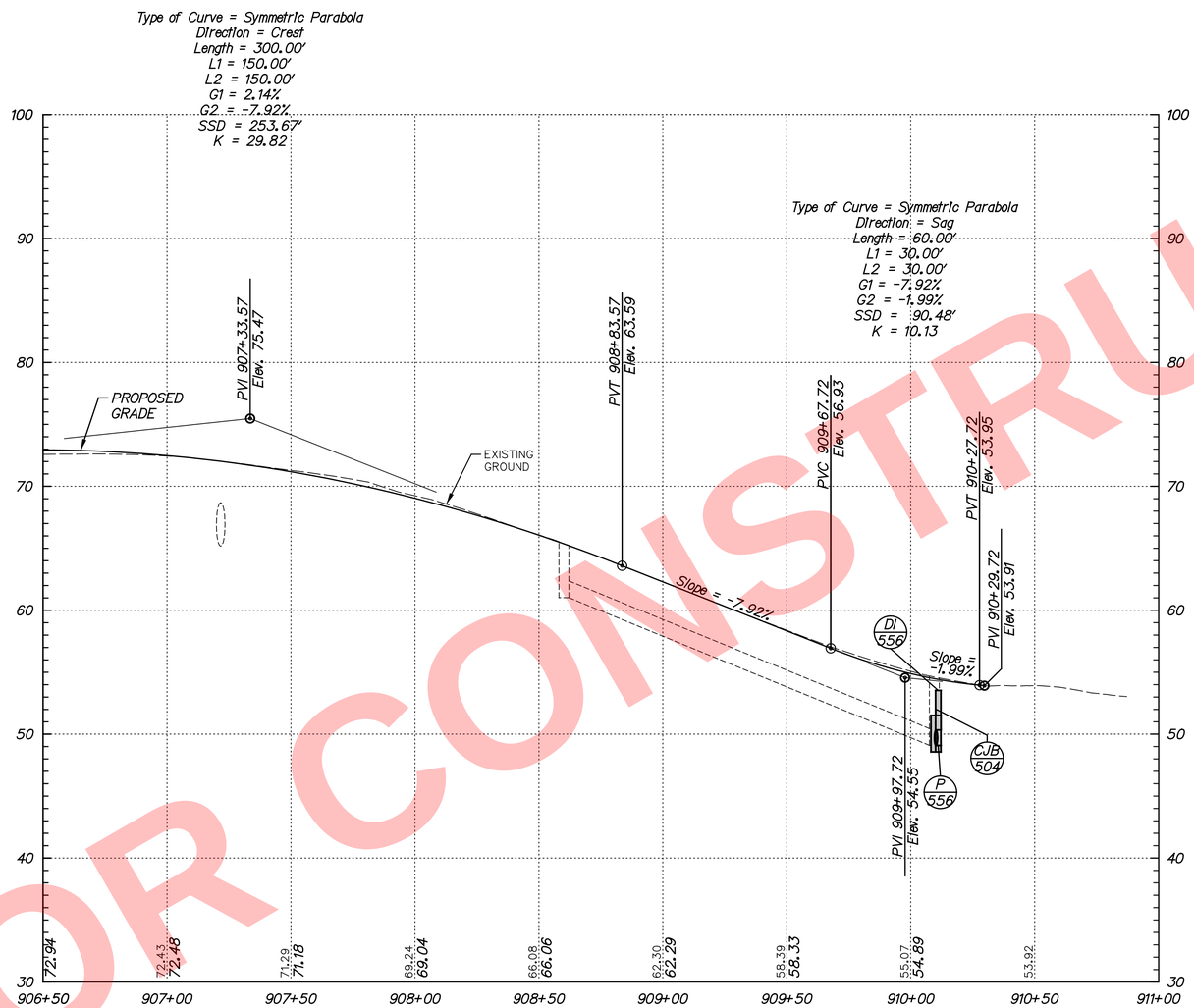
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	
NEW CASTLE	CHECKED BY: PAH

PROFILE

SHEET NO.
1-109
TOTAL SHTS.
1-178



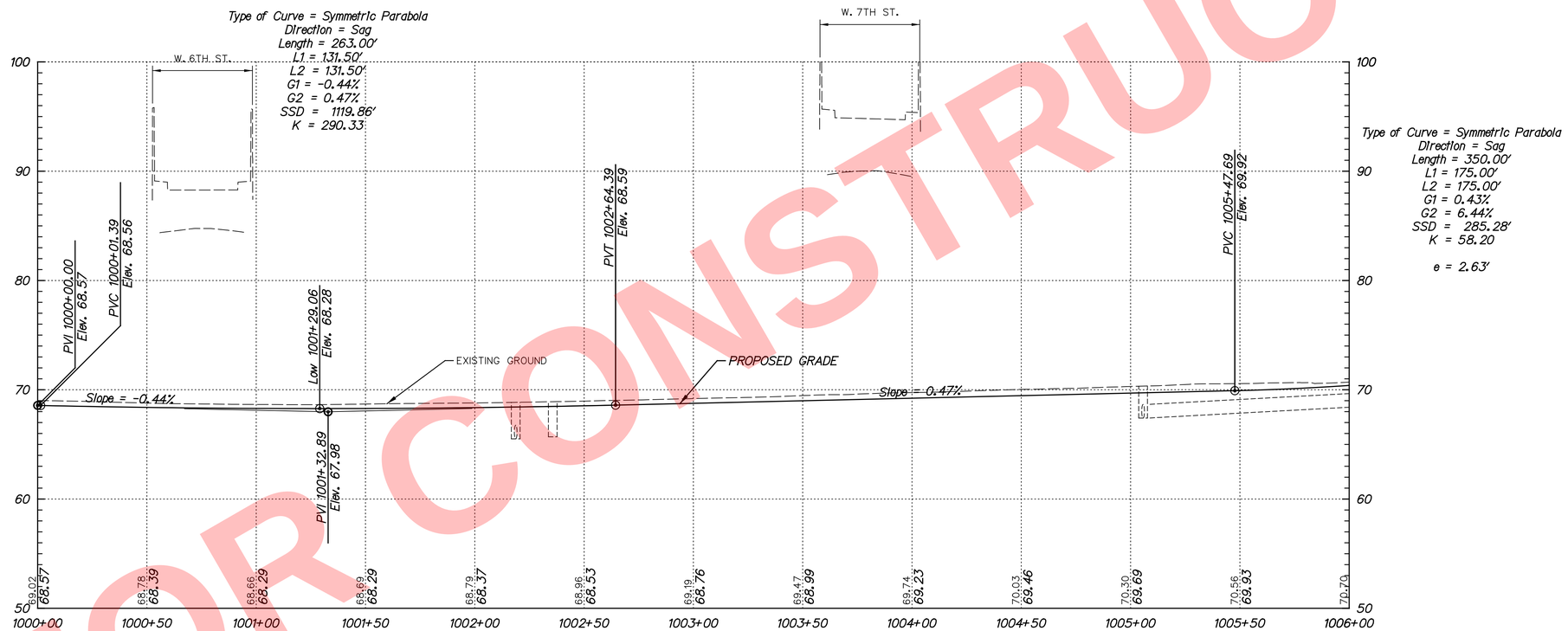
RAMP J

NOT FOR CONSTRUCTION

VERTICAL SCALE FEET 18 12 6 0

PF-21

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	PROFILE	SHEET NO. 1-110
				COUNTY NEW CASTLE	DESIGNED BY: DHW		TOTAL SHTS. 1-178
					CHECKED BY: PAH		



RAMP K

NOT FOR CONSTRUCTION

VERTICAL SCALE FEET 18 12 6 0

PF-22

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

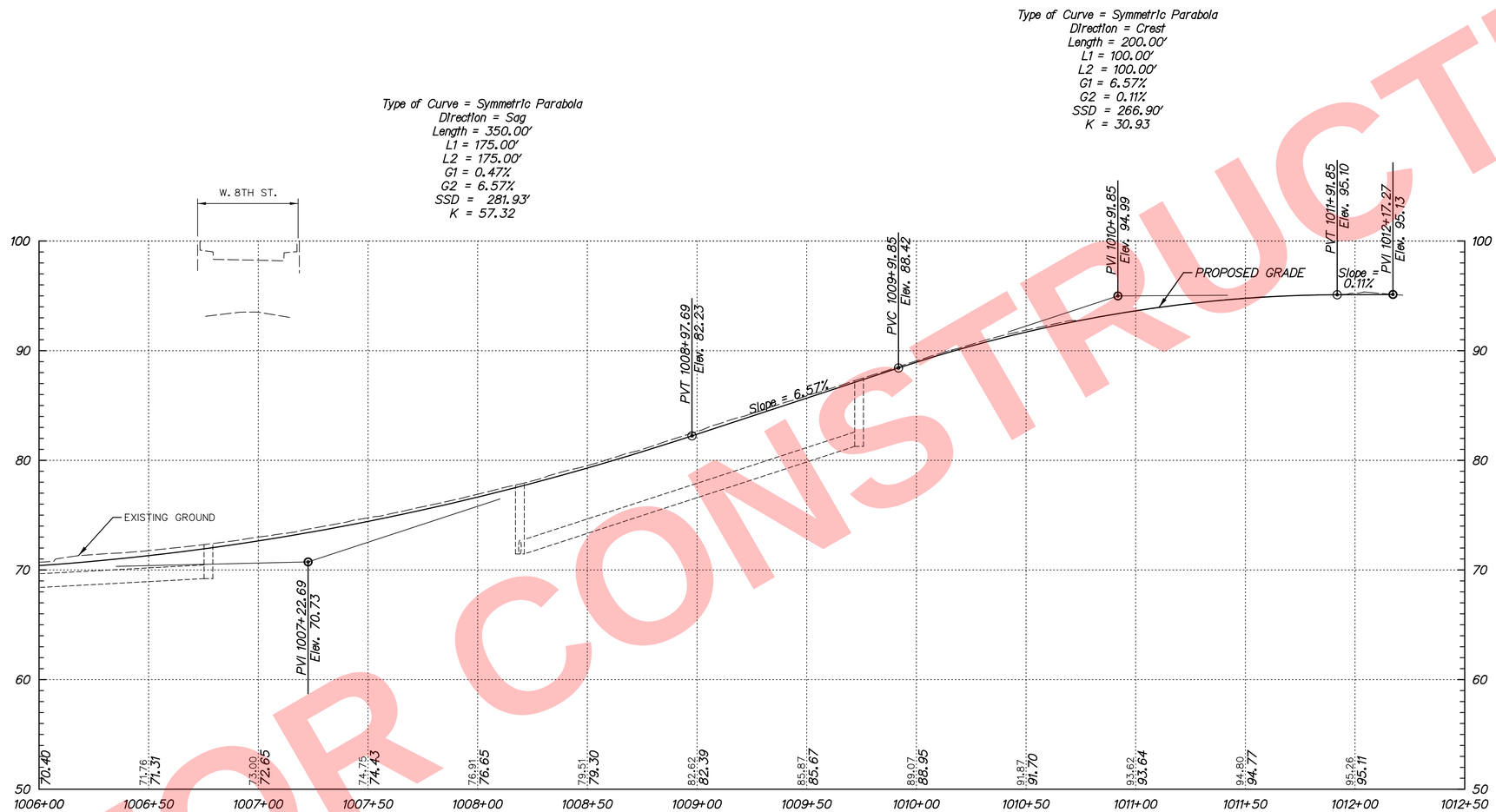
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	
NEW CASTLE	CHECKED BY: PAH

PROFILE

SHEET NO. 1-111

TOTAL SHTS. 1-178



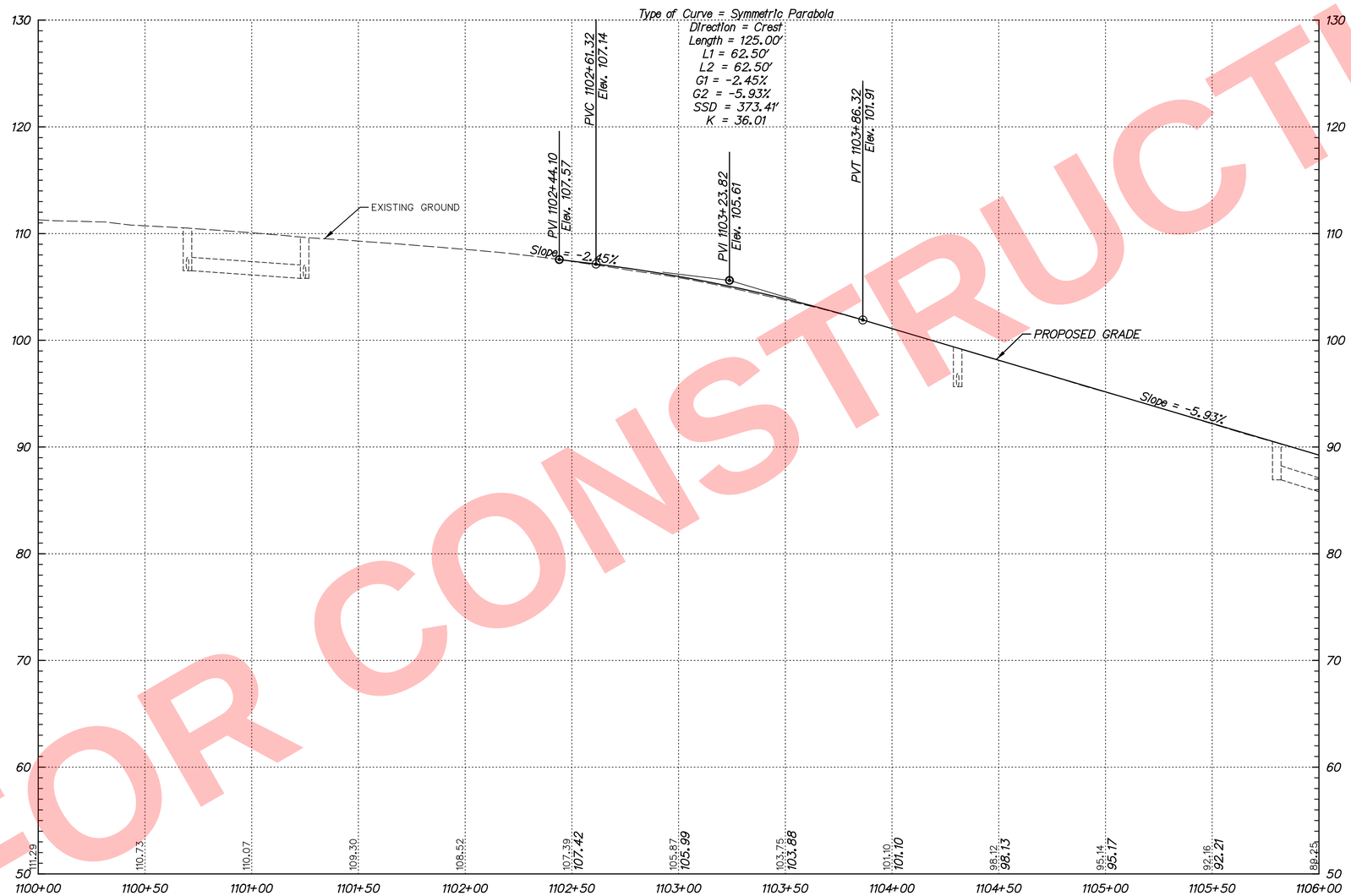
RAMP K

VERTICAL SCALE FEET 18 12 6 0

PF-23

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	PROFILE	SHEET NO. 1-112
				COUNTY NEW CASTLE	DESIGNED BY: DHW		TOTAL SHTS. 1-178
					CHECKED BY: PAH		



RAMP L

VERTICAL SCALE FEET 18 12 6 0

PF-24

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

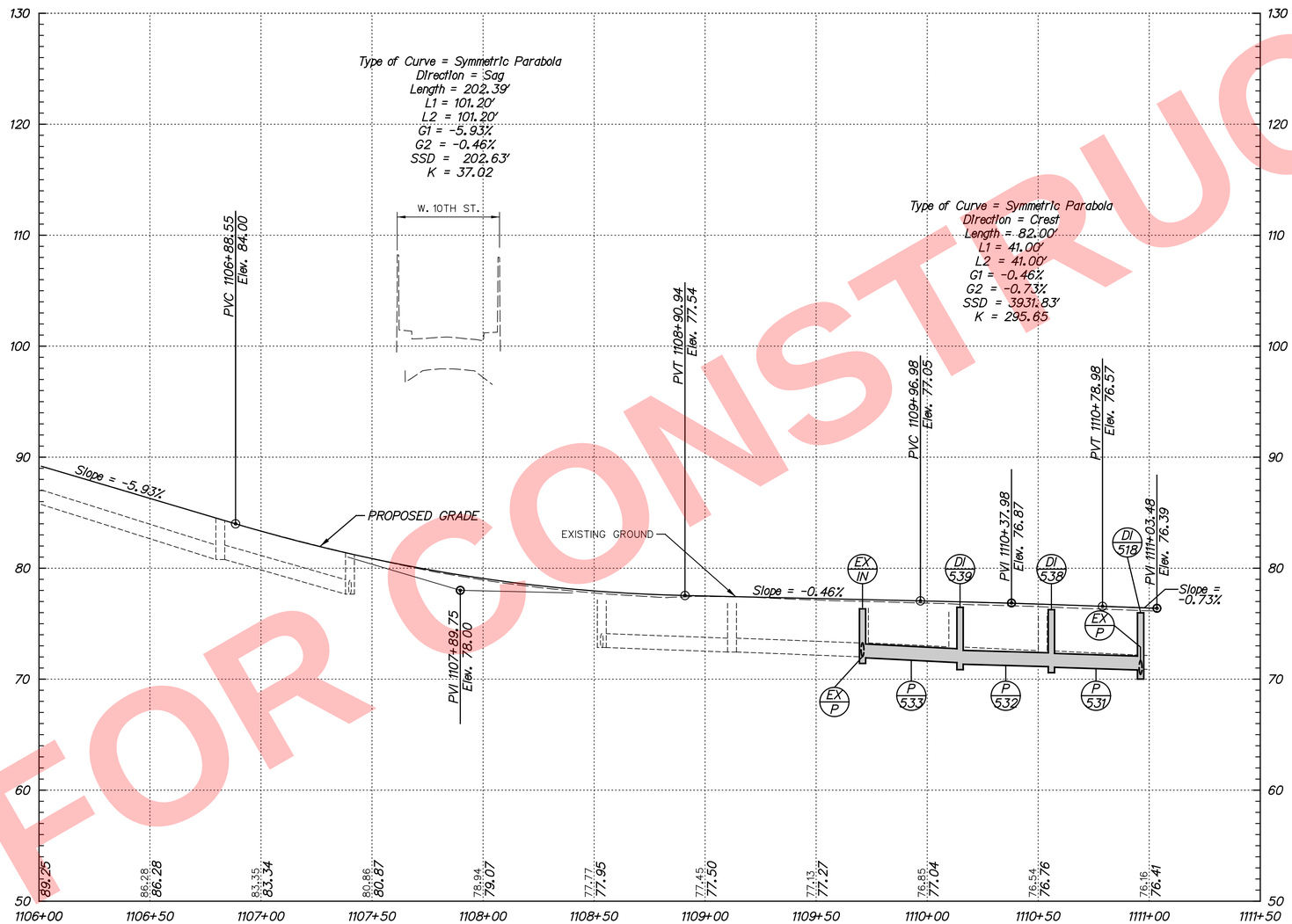
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	
NEW CASTLE	CHECKED BY: PAH

PROFILE

SHEET NO. 1-113

TOTAL SHTS. 1-178



RAMP L

VERTICAL SCALE FEET 18 12 6 0

PF-25

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

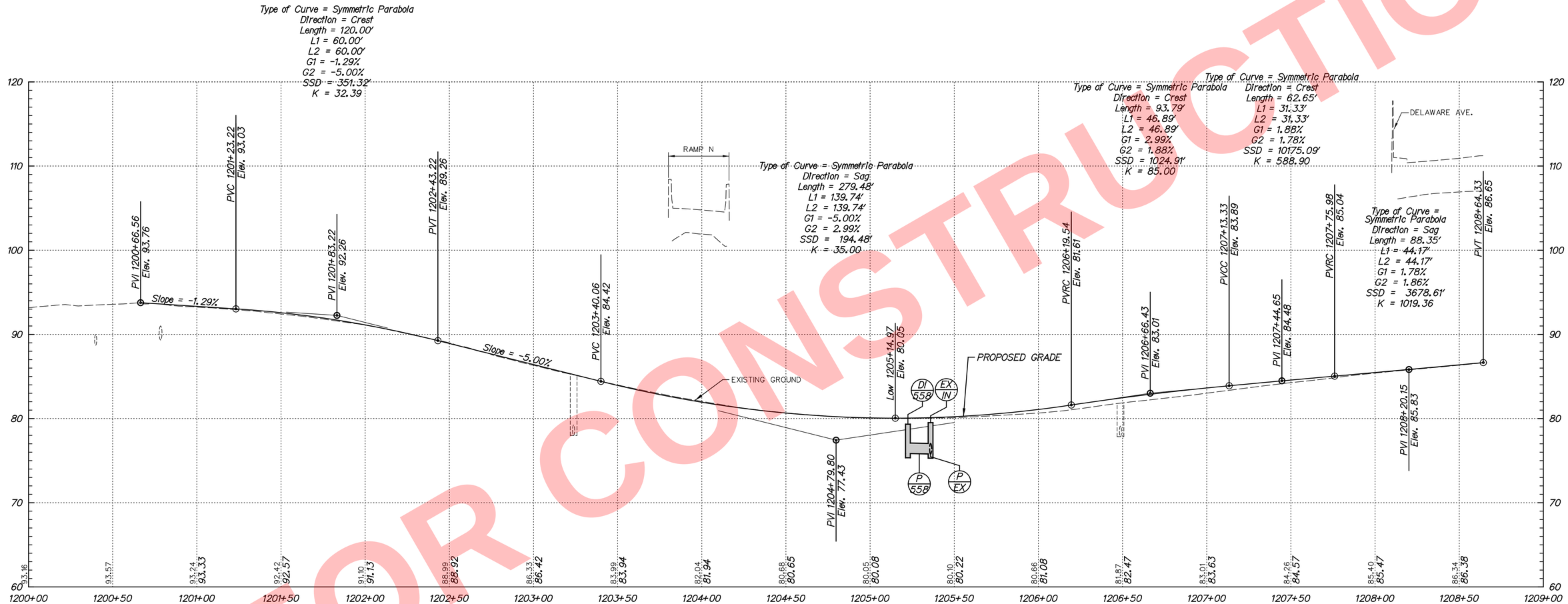
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	
NEW CASTLE	CHECKED BY: PAH

PROFILE

SHEET NO. 1-114

TOTAL SHTS. 1-178



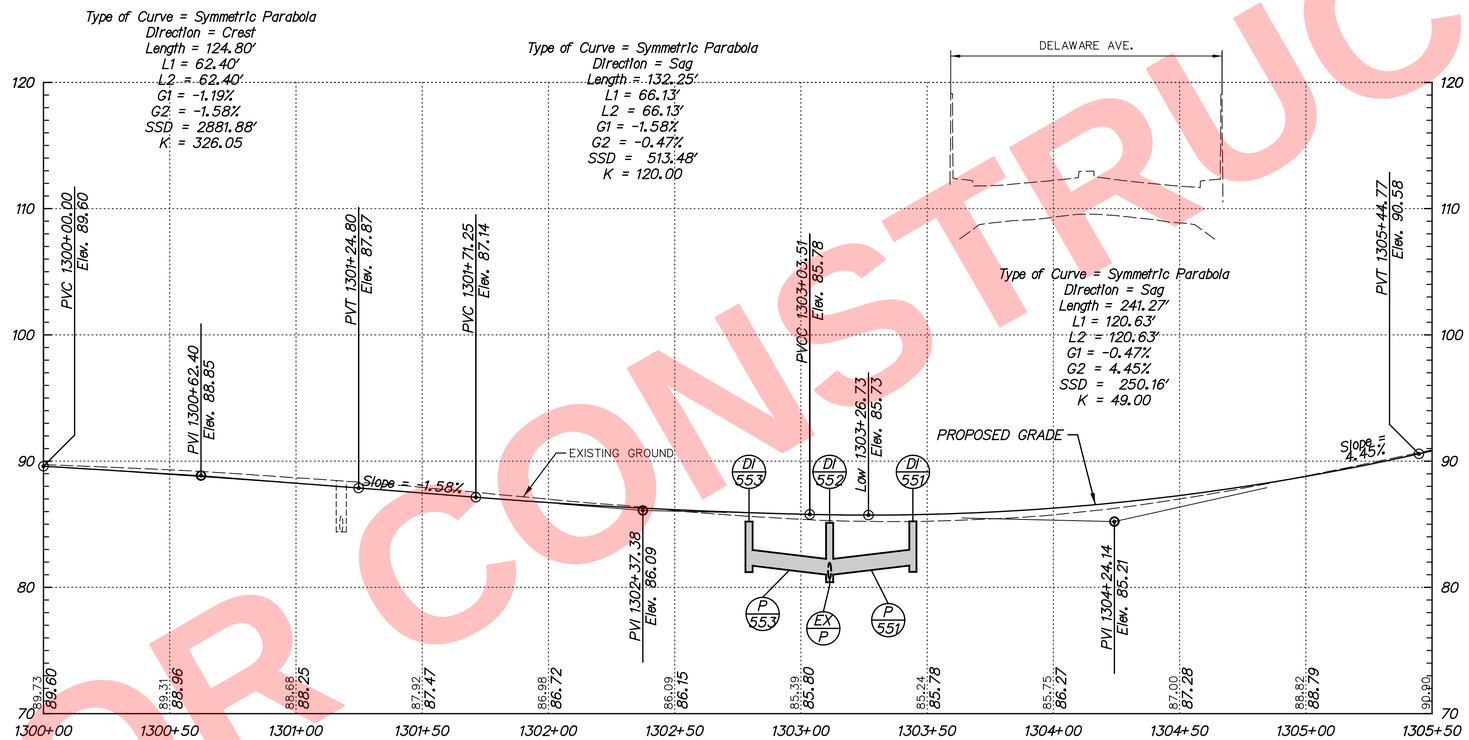
RAMP M

VERTICAL SCALE FEET 18 12 6 0

PF-26

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	PROFILE	SHEET NO. 1-115
				COUNTY NEW CASTLE	DESIGNED BY: DHW		TOTAL SHTS. 1-178
					CHECKED BY: PAH		



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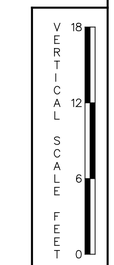
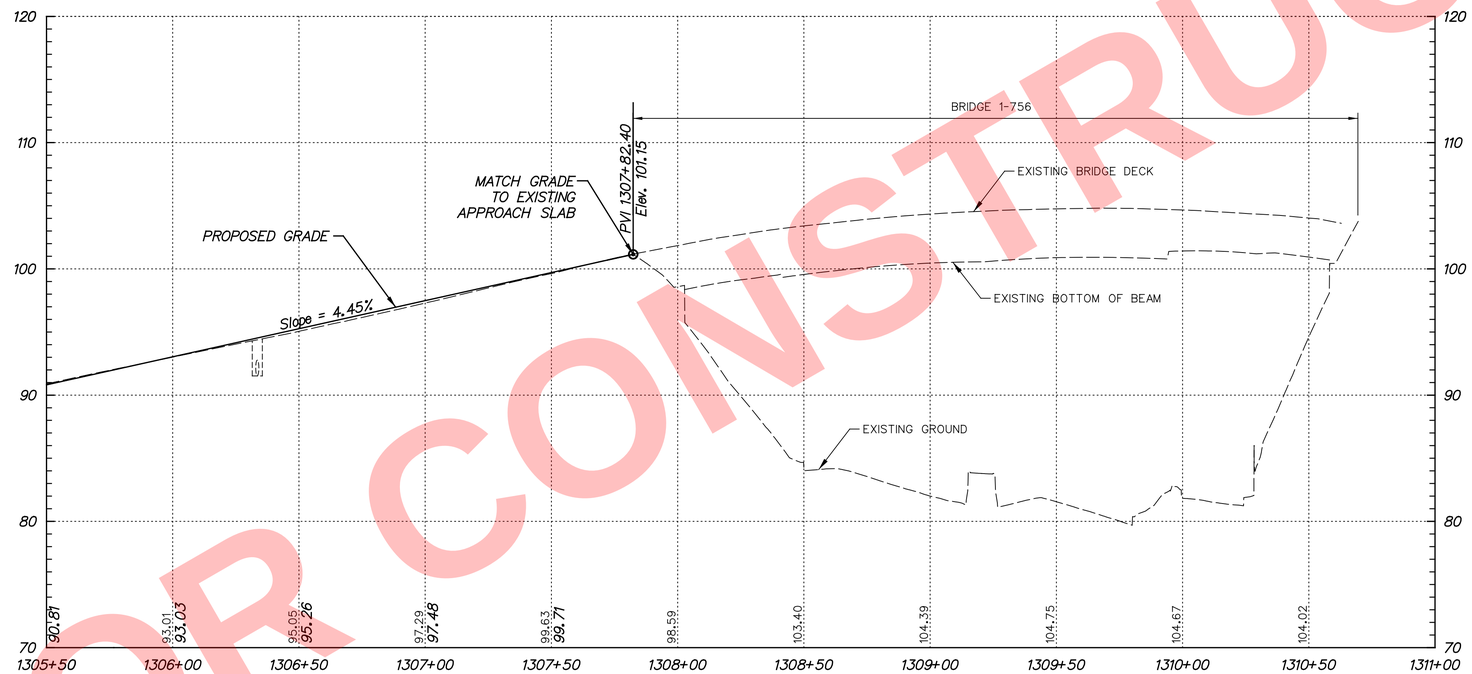


PF-27

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	PROFILE	SHEET NO. 1-116
				COUNTY NEW CASTLE	DESIGNED BY: DHW		TOTAL SHTS. 1-178
					CHECKED BY: PAH		

NOT FOR CONSTRUCTION



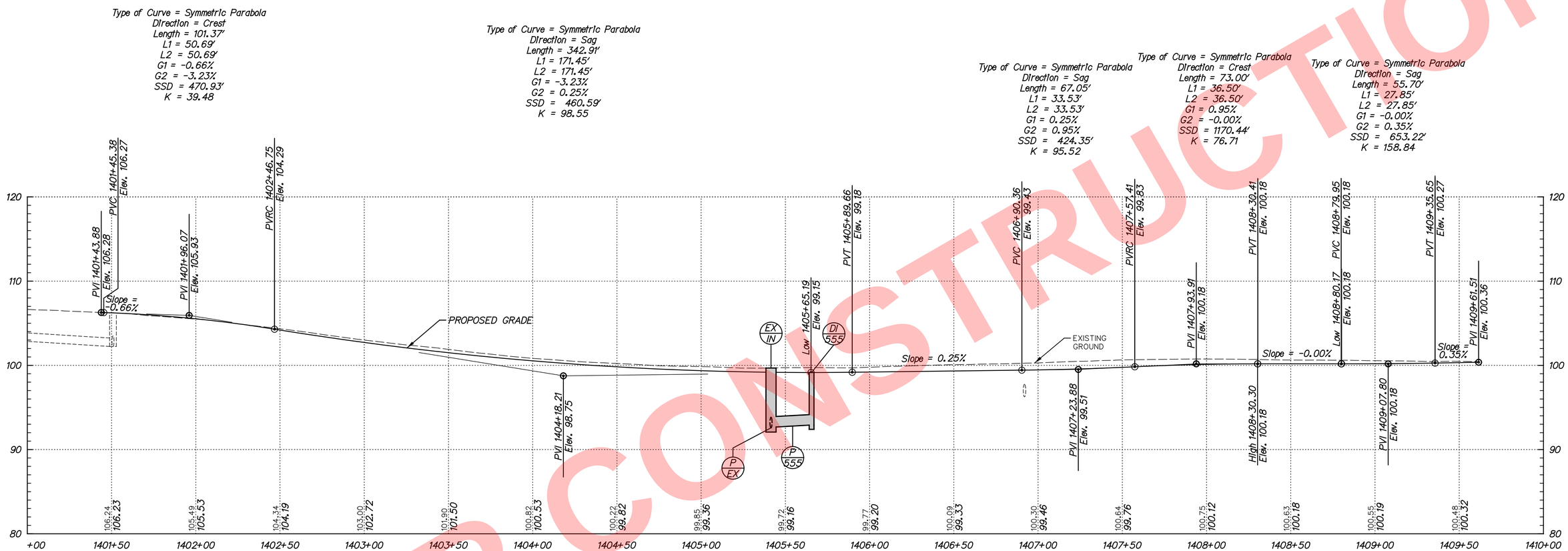
RAMP N

VERTICAL SCALE FEET 18 12 6 0

PF-28

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO. 1-756	PROFILE	SHEET NO. 1-117
				COUNTY NEW CASTLE	DESIGNED BY: DHW		TOTAL SHTS. 1-178
					CHECKED BY: PAH		



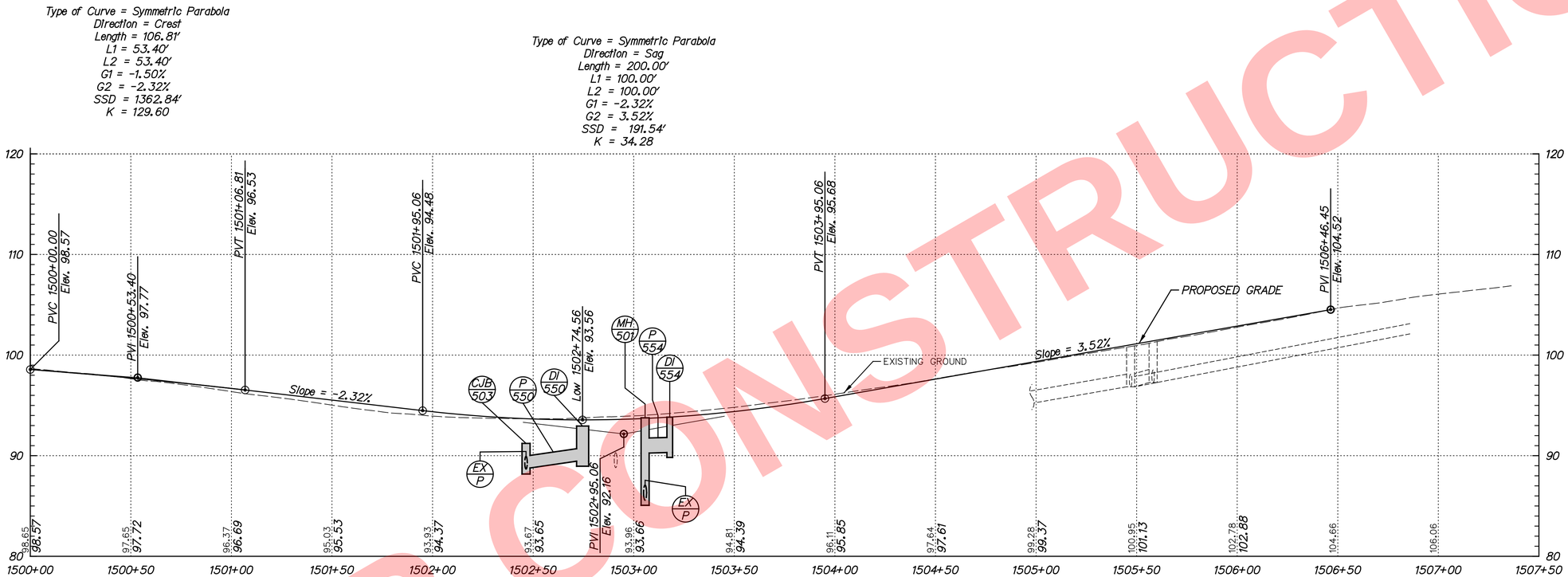
RAMP O

NOT FOR CONSTRUCTION

VERTICAL SCALE FEET 18 12 6 0

PF-29

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	PROFILE	SHEET NO. 1-118
				COUNTY NEW CASTLE	DESIGNED BY: DHW		TOTAL SHTS. 1-178
					CHECKED BY: PAH		



RAMP P

NOT FOR CONSTRUCTION

VERTICAL SCALE FEET 18 12 6 0

PF-30

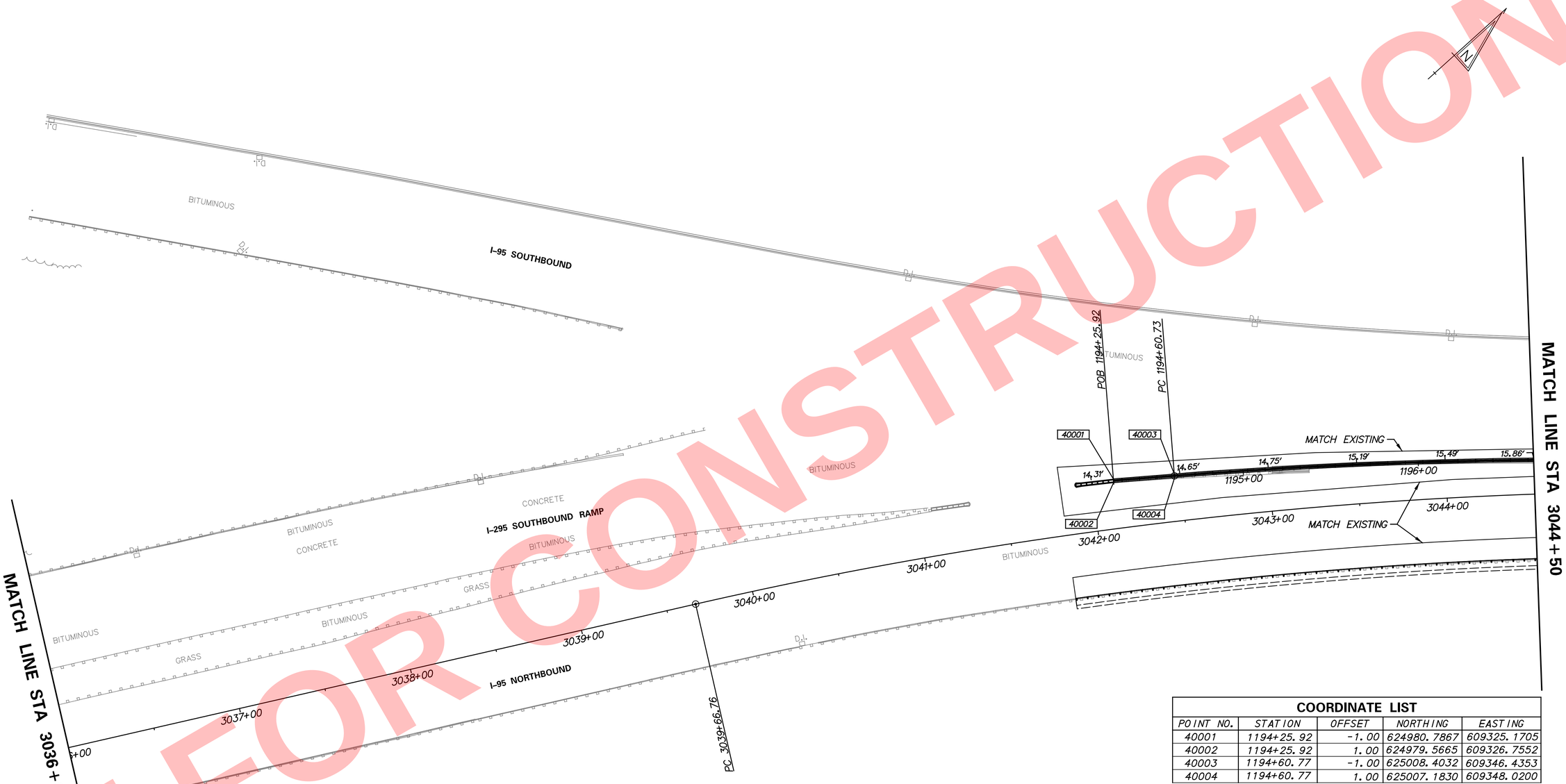
DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	PROFILE	SHEET NO.
T201407404	DESIGNED BY: DHW		1-119
COUNTY			TOTAL SHTS.
NEW CASTLE	CHECKED BY: PAH		1-178



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
40001	1194+25.92	-1.00	624980.7867	609325.1705
40002	1194+25.92	1.00	624979.5665	609326.7552
40003	1194+60.77	-1.00	625008.4032	609346.4353
40004	1194+60.77	1.00	625007.1830	609348.0200

HP	HIGH POINT
LP	LOW POINT

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

NOT FOR CONSTRUCTION

JOINT LAYOUT NOTES:

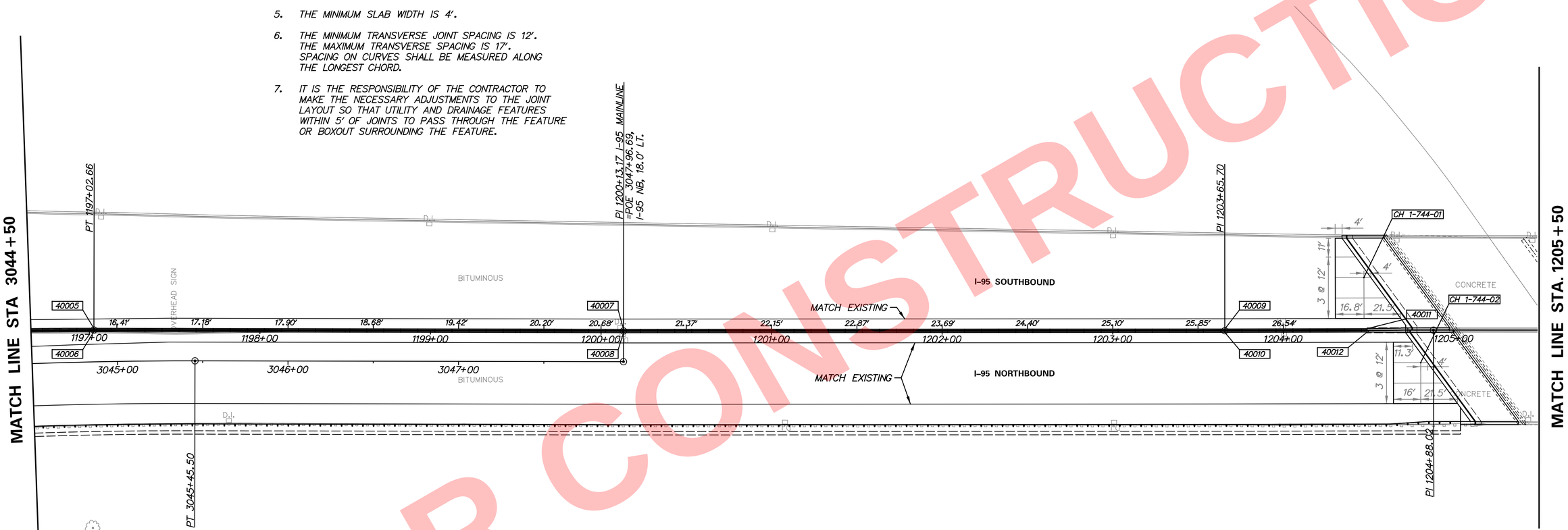
1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

SPECIAL NOTE: ALL CONCRETE PANELS SHOWN ON THIS SHEET SHALL BE CLASS A CONCRETE AND SHALL REQUIRE THE USE OF NONFERROUS REINFORCEMENT FIBERS AT A RATE OF 1.5 POUNDS PER CUBIC YARD. CLASS A CONCRETE AND NONFERROUS FIBERS SHALL BE INCIDENTAL TO ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"

CORE HOLE SCHEDULE

POINT NO.	STATION	OFFSET	NORTHING	EASTING
CH 1-744-01	1204+47.35	-31.00	625766.3406	609978.8215
CH 1-744-02	1204+80.52	19.00	625757.5640	610038.1822

PROVIDE 2-INCH DIAMETER MINIMUM, 2.5-INCH DIAMETER MAXIMUM CORE HOLE AT INTERSECTION OF PROPOSED JOINT, PRIOR TO SAWCUTTING JOINTS. CHARTED LOCATION TO BE VERIFIED BASED ON THE CONTRACTOR'S JOINT LAYOUT PRIOR TO DRILLING. FILL CORE HOLE WITH NON-SHRINK GROUT. CORE HOLES AND NON-SHRINK GROUT SHALL BE INCIDENTAL TO ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
40005	1197+02.62	-1.00	625193.9290	609501.5950
40006	1197+02.62	1.00	625192.5853	609503.0764
40007	1200+13.17	-1.00	625423.9276	609710.2673
40008	1200+13.17	1.00	625422.5837	609711.7486
40009	1203+65.70	-1.00	625685.5656	609946.5281
40010	1203+65.70	1.00	625684.2259	609948.0132
40011	1204+49.15	-1.00	625747.6135	610002.3270
40012	1204+49.15	1.00	625746.2761	610003.8141

HP	HIGH POINT
LP	LOW POINT

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

NOT FOR CONSTRUCTION

JOINT LAYOUT NOTES:

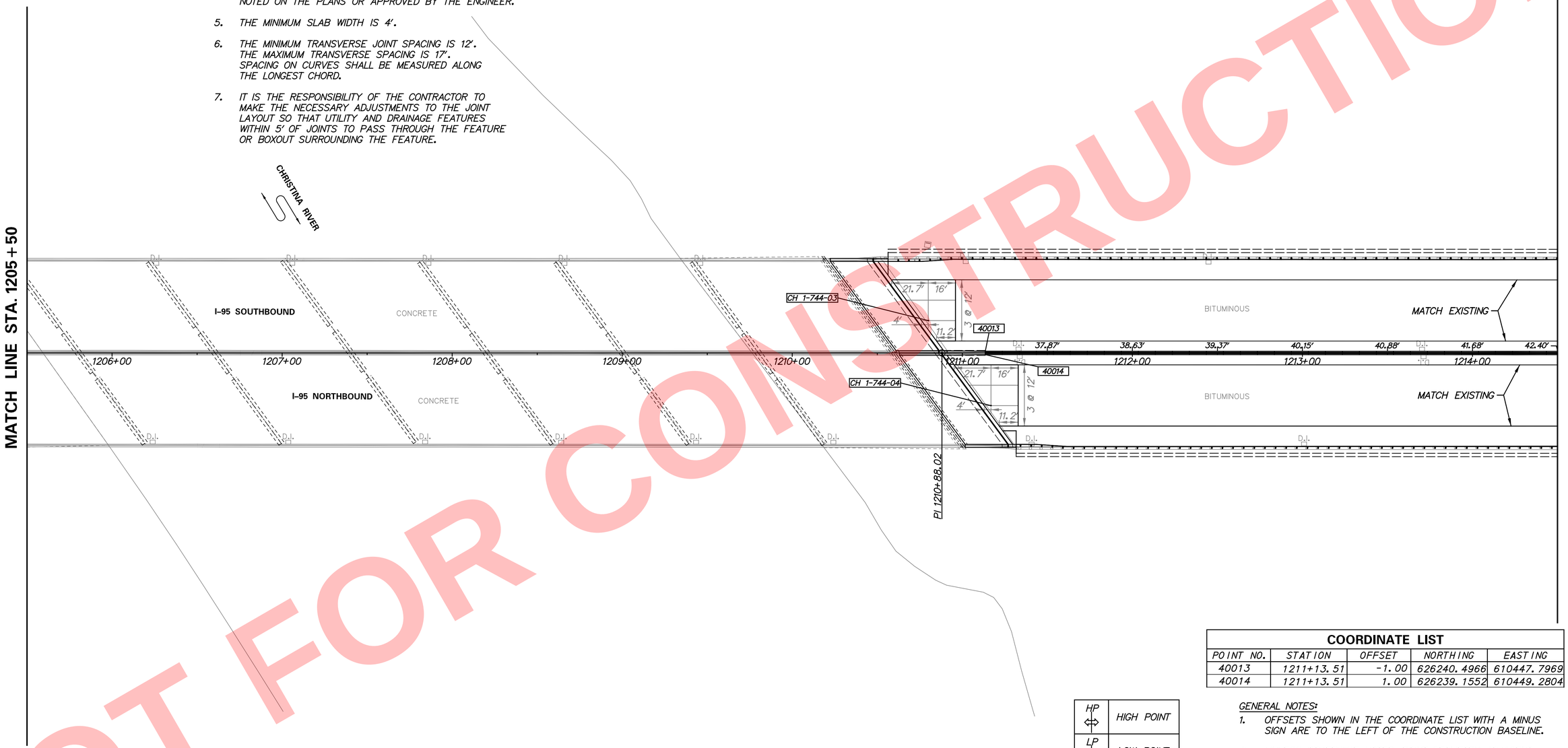
1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

SPECIAL NOTE: ALL CONCRETE PANELS SHOWN ON THIS SHEET SHALL BE CLASS A CONCRETE AND SHALL REQUIRE THE USE OF NONFERROUS REINFORCEMENT FIBERS AT A RATE OF 1.5 POUNDS PER CUBIC YARD. CLASS A CONCRETE AND NONFERROUS FIBERS SHALL BE INCIDENTAL TO ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"

CORE HOLE SCHEDULE

POINT NO.	STATION	OFFSET	NORTHING	EASTING
CH 1-744-03	1210+79.97	-19.00	626227.6923	610411.9549
CH 1-744-04	1211+16.83	31.00	626221.5052	610473.7662

PROVIDE 2-INCH DIAMETER MINIMUM, 2.5-INCH DIAMETER MAXIMUM CORE HOLE AT INTERSECTION OF PROPOSED JOINT, PRIOR TO SAWCUTTING JOINTS. CHARTED LOCATION TO BE VERIFIED BASED ON THE CONTRACTOR'S JOINT LAYOUT PRIOR TO DRILLING. FILL CORE HOLE WITH NON-SHRINK GROUT. CORE HOLES AND NON-SHRINK GROUT SHALL BE INCIDENTAL TO ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
40013	1211+13.51	-1.00	626240.4966	610447.7969
40014	1211+13.51	1.00	626239.1552	610449.2804

HP	HIGH POINT
LP	LOW POINT

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
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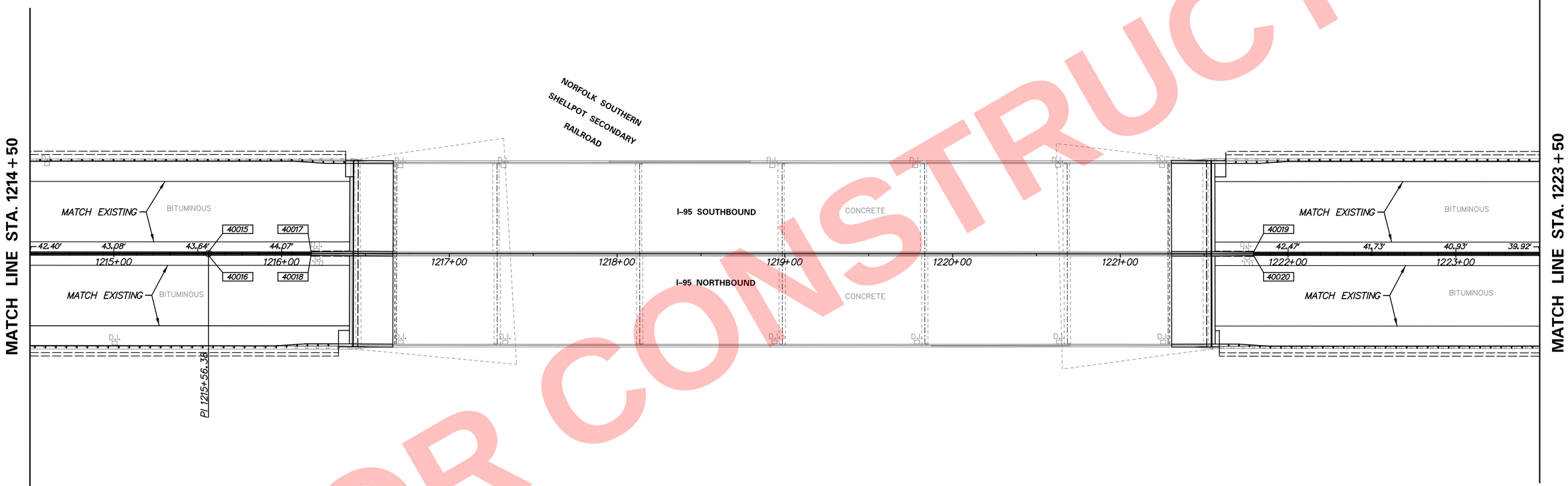
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

NOT FOR CONSTRUCTION



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
40015	1215+56.38	-1.00	626569.0047	610744.8195
40016	1215+56.38	1.00	626567.6634	610746.3030
40017	1216+17.55	-1.00	626614.3730	610785.8448
40018	1216+17.55	1.00	626613.0316	610787.3283
40019	1221+79.43	-1.00	627031.1301	611162.7073
40020	1221+79.43	1.00	627029.7887	611164.1908

HP	HIGH POINT
LP	LOW POINT

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
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5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

GG-04

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 30 60 90
FEET

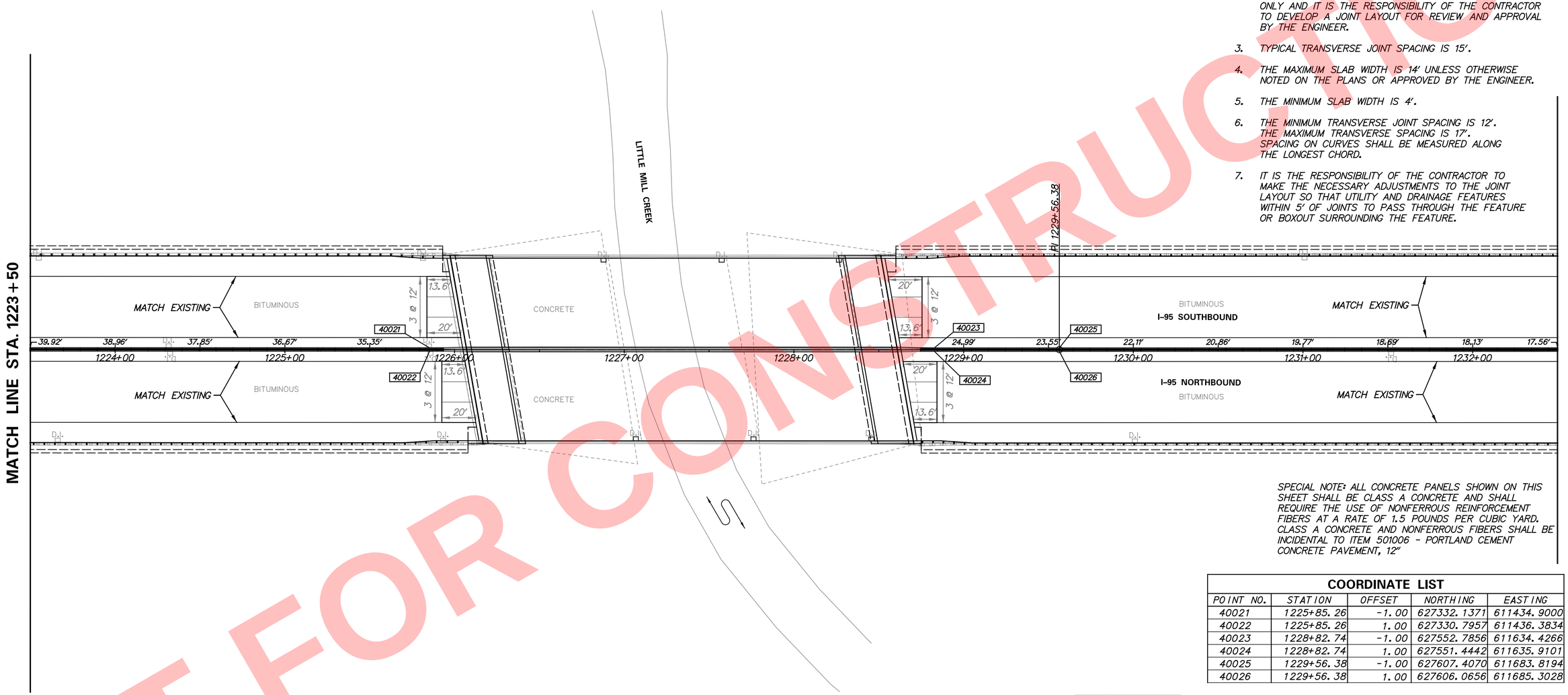
REHABILITATION OF I-95
FROM I-495 TO NORTH OF
BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-745
T201407404	DESIGNED BY: DHW	
COUNTY		
NEW CASTLE	CHECKED BY: PAH	

GRADES AND GEOMETRICS

SHEET NO. 1-123
TOTAL SHTS. 1-178

NOT FOR CONSTRUCTION



JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

SPECIAL NOTE: ALL CONCRETE PANELS SHOWN ON THIS SHEET SHALL BE CLASS A CONCRETE AND SHALL REQUIRE THE USE OF NONFERROUS REINFORCEMENT FIBERS AT A RATE OF 1.5 POUNDS PER CUBIC YARD. CLASS A CONCRETE AND NONFERROUS FIBERS SHALL BE INCIDENTAL TO ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
40021	1225+85.26	-1.00	627332.1371	611434.9000
40022	1225+85.26	1.00	627330.7957	611436.3834
40023	1228+82.74	-1.00	627552.7856	611634.4266
40024	1228+82.74	1.00	627551.4442	611635.9101
40025	1229+56.38	-1.00	627607.4070	611683.8194
40026	1229+56.38	1.00	627606.0656	611685.3028

HP	HIGH POINT
LP	LOW POINT

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
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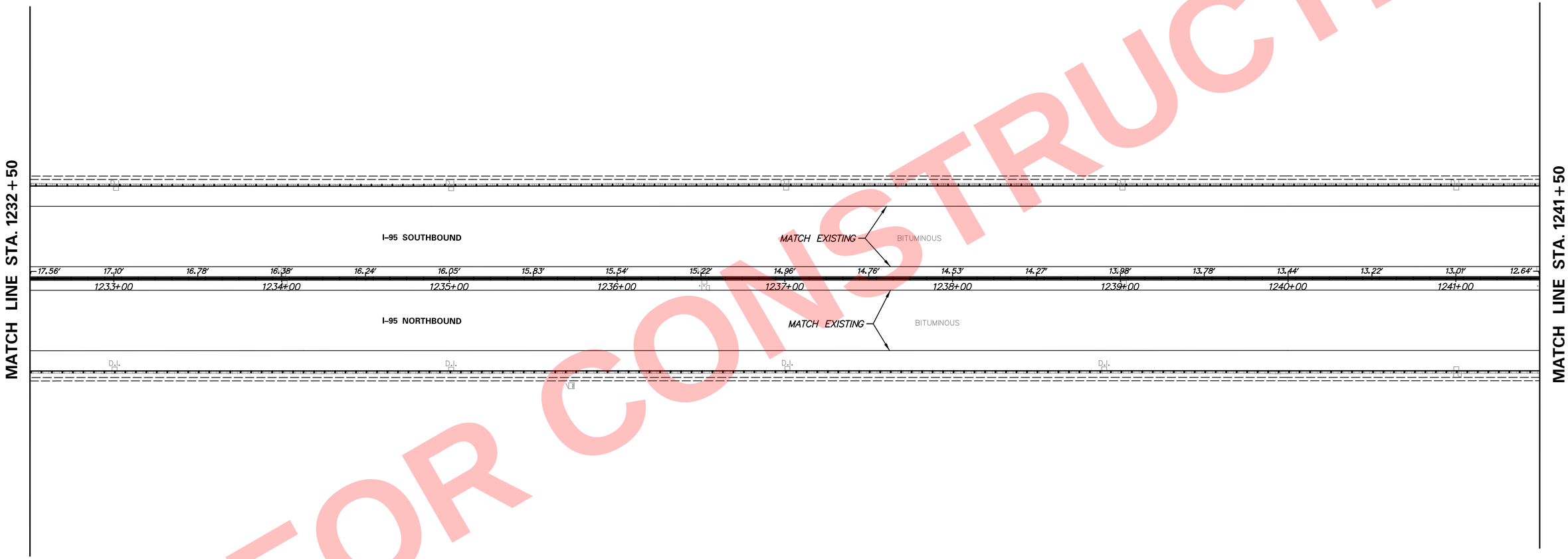
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

NOT FOR CONSTRUCTION



HP	HIGH POINT
LP	LOW POINT

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

GG-06

NOT FOR CONSTRUCTION

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

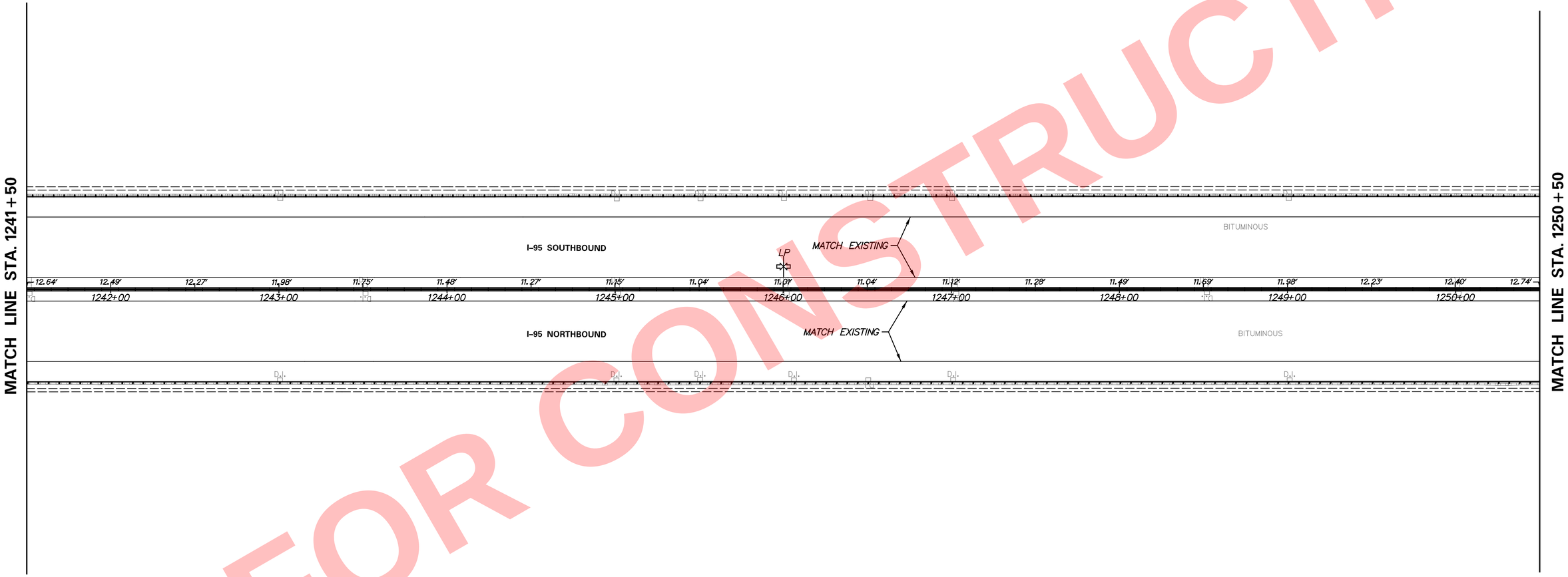
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95
FROM I-495 TO NORTH OF
BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	
NEW CASTLE	CHECKED BY: PAH

GRADES AND GEOMETRICS

SHEET NO.
1-125
TOTAL SHTS.
1-178



HP	HIGH POINT
LP	LOW POINT

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
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5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

GG-07

DELAWARE
DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE
0 30 60 90
FEET

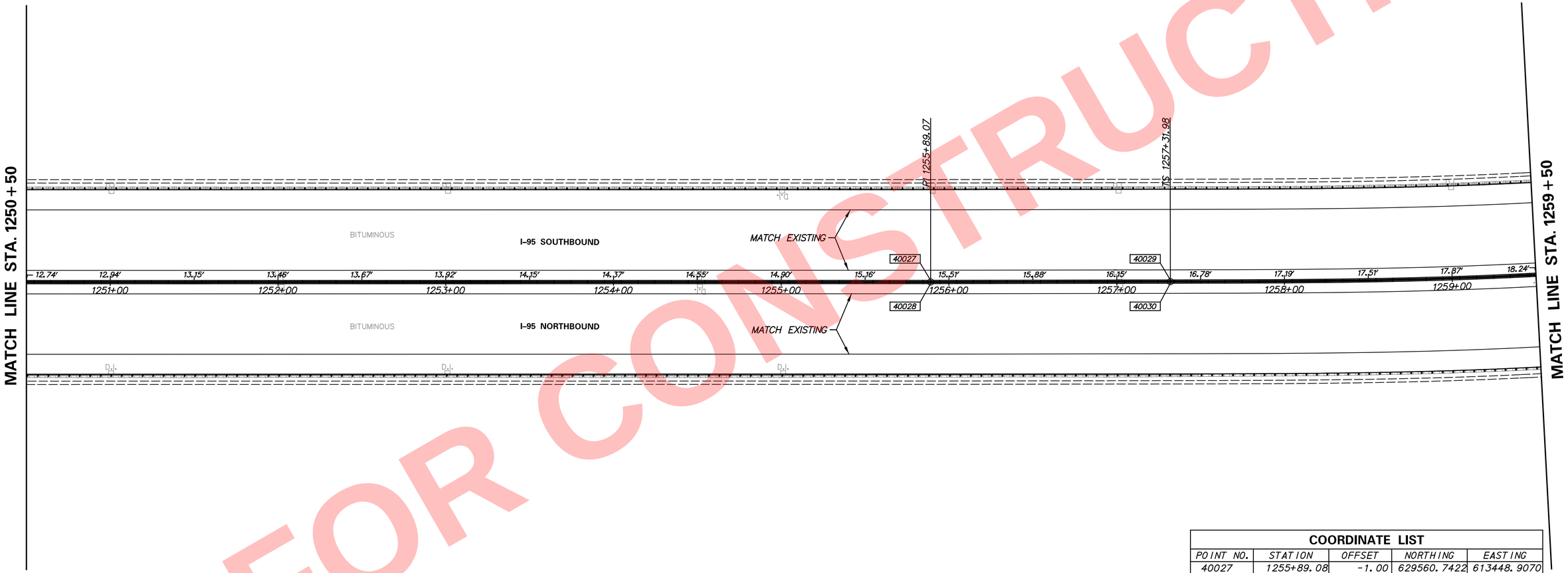
REHABILITATION OF I-95
FROM I-495 TO NORTH OF
BRANDYWINE RIVER BRIDGE

CONTRACT	T201407404
COUNTY	NEW CASTLE
BRIDGE NO.	
DESIGNED BY: DHW	
CHECKED BY: PAH	

GRADES AND GEOMETRICS

SHEET NO.	1-126
TOTAL SHTS.	1-178

NOT FOR CONSTRUCTION



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
40027	1255+89.08	-1.00	629560.7422	613448.9070
40028	1255+89.07	1.00	629559.4013	613450.3909
40029	1257+31.98	-1.00	629666.9186	613544.5576
40030	1257+31.98	1.00	629665.5799	613546.0435

HP	HIGH POINT
LP	LOW POINT

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
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5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

NOTES:

1. FOR DRAINAGE INLET AND PIPE REHABILITATION NOTES SEE SHEET PN-01.

NOT FOR CONSTRUCTION

GG-08

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

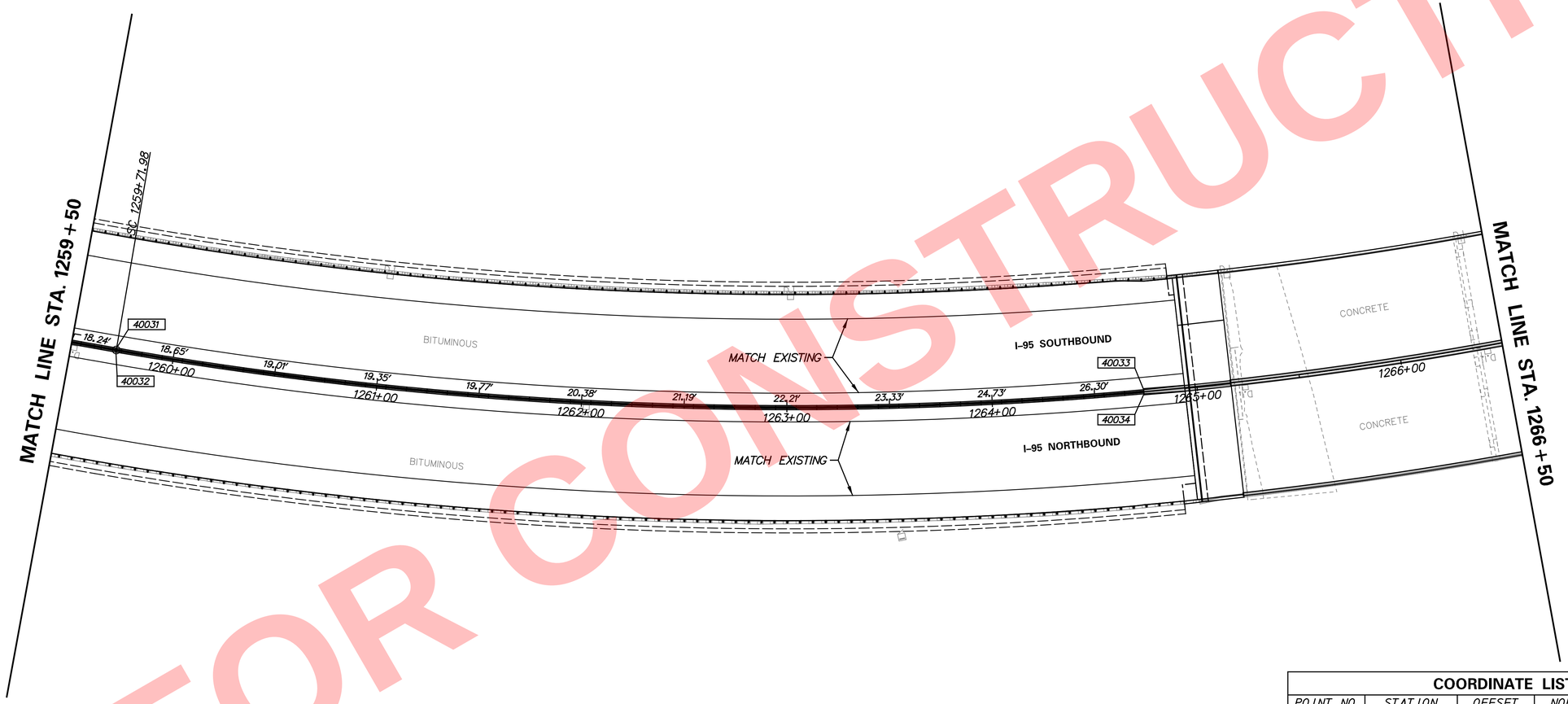
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	
NEW CASTLE	CHECKED BY: PAH

GRADES AND GEOMETRICS

SHEET NO. 1-127

TOTAL SHTS. 1-178



COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
40031	1259+71.98	-1.00	629848.4444	613701.3975
40032	1259+71.98	1.00	629847.1982	613702.9617
40033	1264+73.99	-1.00	630277.3098	613959.0924
40034	1264+73.99	1.00	630276.5101	613960.9256

HP	HIGH POINT
LP	LOW POINT

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
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5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

GG-09

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT T201407404
COUNTY NEW CASTLE
BRIDGE NO.
DESIGNED BY: DHW
CHECKED BY: PAH

GRADES AND GEOMETRICS

SHEET NO. 1-128
TOTAL SHTS. 1-178

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. MAXIMUM AND MINIMUM SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
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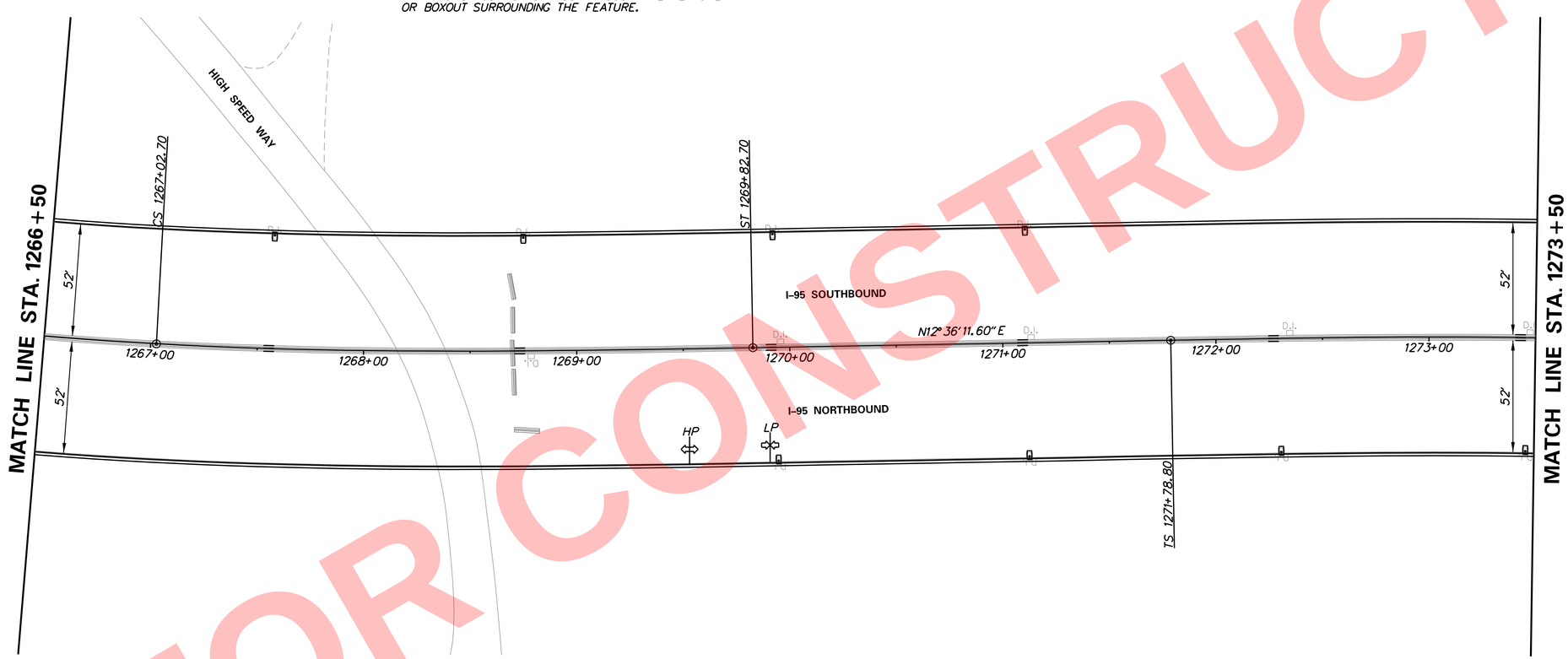

HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-10
SECTION
WRA
SHEET NO.
129

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
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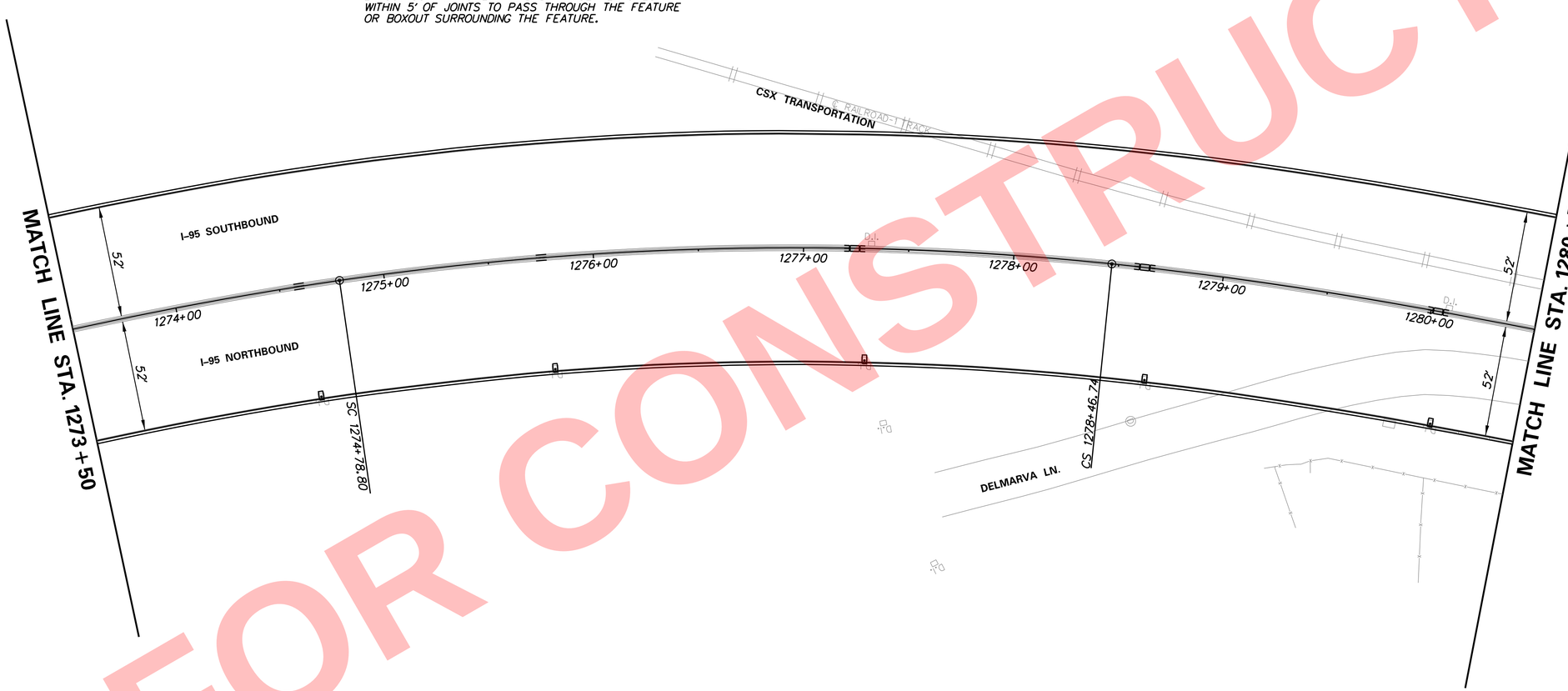

HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-11
SECTION
WRA
SHEET NO.
130

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
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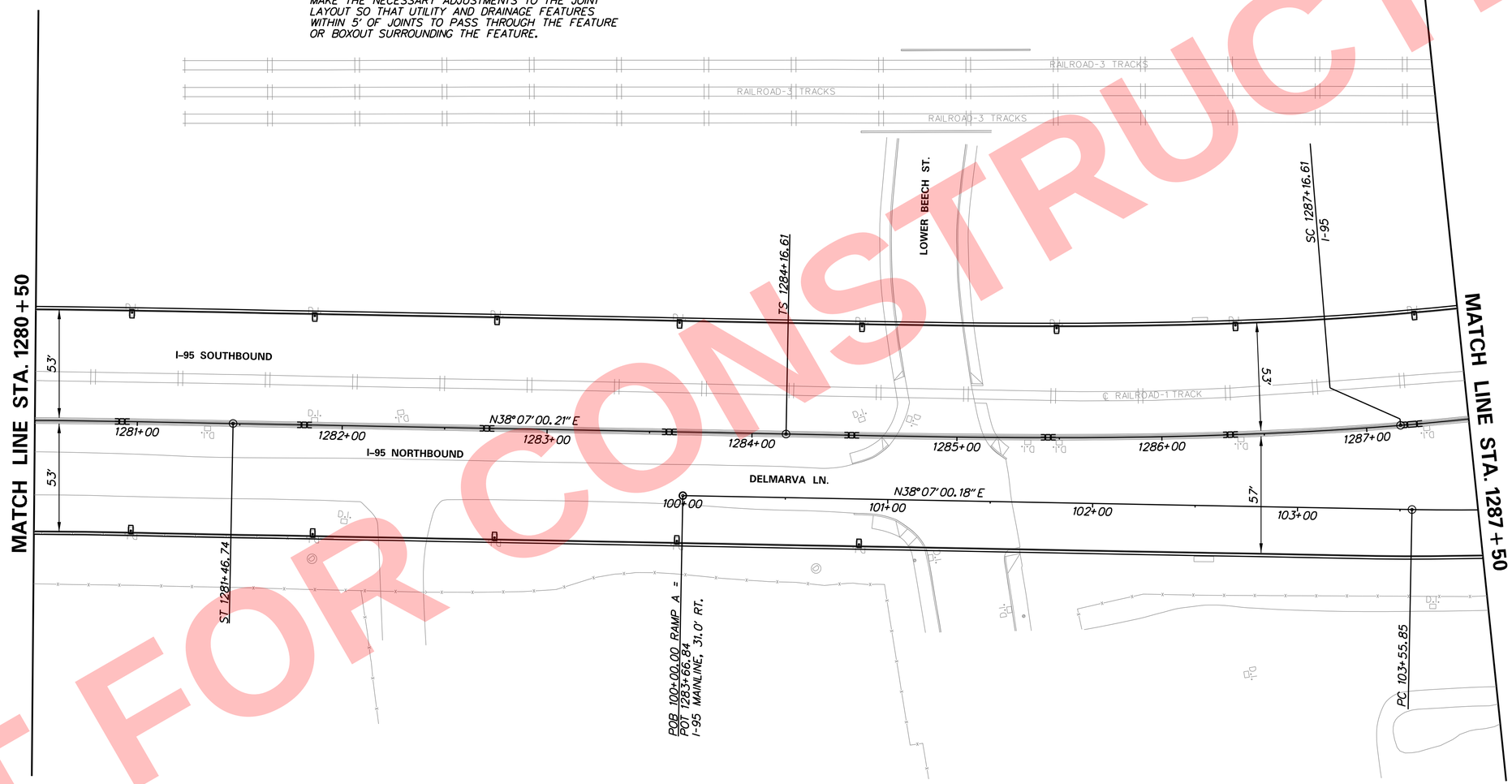

HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	SCALE 0 30 60 90 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	GRADES AND GEOMETRICS AND JOINT LAYOUT	GG-12
			COUNTY NEW CASTLE	DESIGNED BY: JAD		SECTION WRA
				CHECKED BY: BRT		SHEET NO. 131

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
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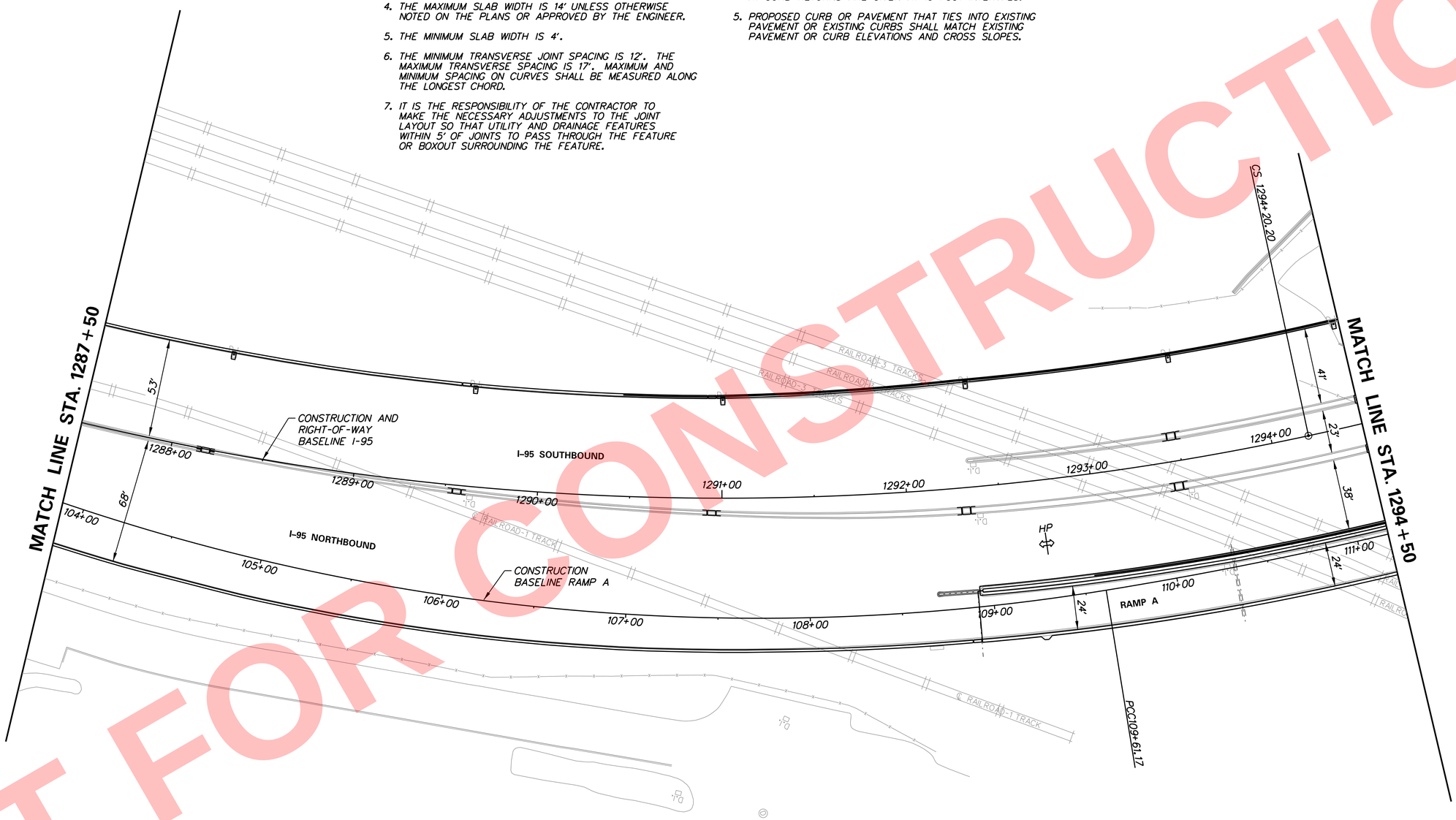
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.



HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-13
SECTION
WRA
SHEET NO.
132

COORDINATE LIST

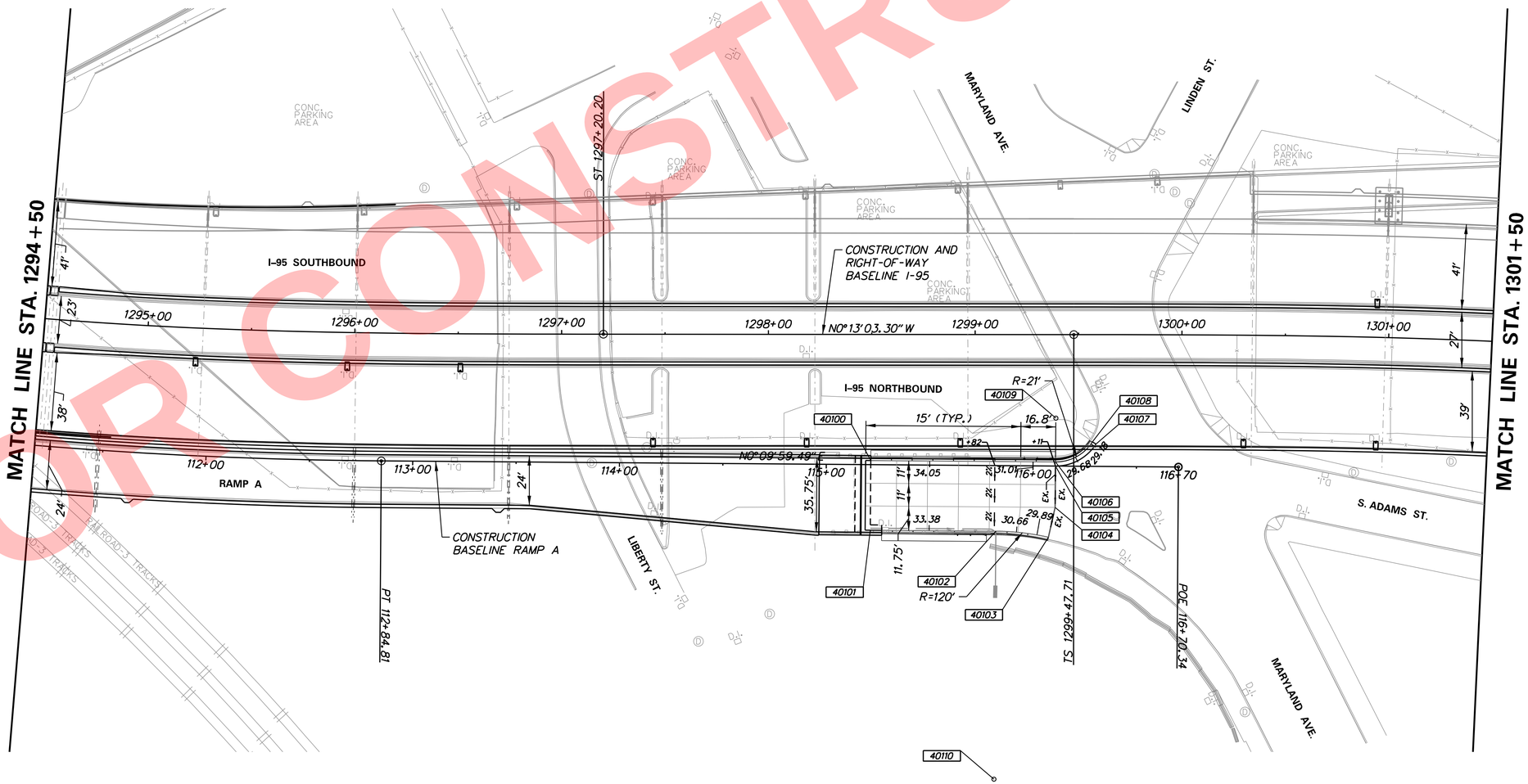
POINT NO.	STATION	OFFSET	NORTHING	EASTING
40100	115+21.54	-2.00'	633361.4149	615198.1715
40101	115+21.54	31.75'	633361.3168	615231.9214
40102	115+82.26	31.75'	633422.0324	615232.0978
40103	116+07.71	34.48'	633447.4805	615234.9030
40104	116+10.85	20.00'	633450.6661	615220.4310
40105	116+10.85	0.00'	633450.7243	615200.4311
40106	116+10.85	-2.00'	633450.7300	615198.4311
40107	116+30.34	-10.79'	633470.2440	615189.7025
40108	116+28.65	-11.85'	633468.5524	615188.6354
40109	116+10.90	-23.16'	633450.8409	615177.2697
40110	115+82.26	151.75'	633421.6837	615352.0973

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. MAXIMUM AND MINIMUM SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.



HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-14

SECTION WRA

SHEET NO. 133

HP	HIGH POINT
LP	LOW POINT

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS.

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
43500	712+48.19	-4.37	633772.6941	615158.5375
43501	711+82.26	-4.09	633837.9083	615166.9507
43502	711+82.26	-3.59	633837.9802	615166.4552
43503	710+93.34	-4.00	633925.1429	615182.8789
43504	710+14.01	-4.00	634002.3219	615200.6472
43505	709+45.56	-4.00	634067.3789	615220.4279
43506	708+01.50	-4.00	634184.6936	615298.3005
43507	707+62.98	-3.80	634208.7595	615327.6910
43508	707+62.99	-4.30	634208.3441	615327.9709
43509	707+22.19	-4.44	634229.0901	615362.3632
43600	712+48.44	18.64	633775.0057	615135.6455
43601	711+82.47	18.91	633841.2103	615144.1933
43602	711+82.47	18.41	633841.1384	615144.6887
43603	710+93.34	18.00	633929.7229	615161.3609
43604	710+14.01	18.00	634007.6121	615179.2927
43605	709+45.56	18.00	634074.8710	615199.7429
43606	708+01.50	18.00	634200.8465	615283.3645
43607	707+62.51	18.18	634226.9938	615315.4056
43608	707+62.50	18.68	634227.4091	615315.1258
43609	707+22.01	18.42	634249.4807	615352.0366

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

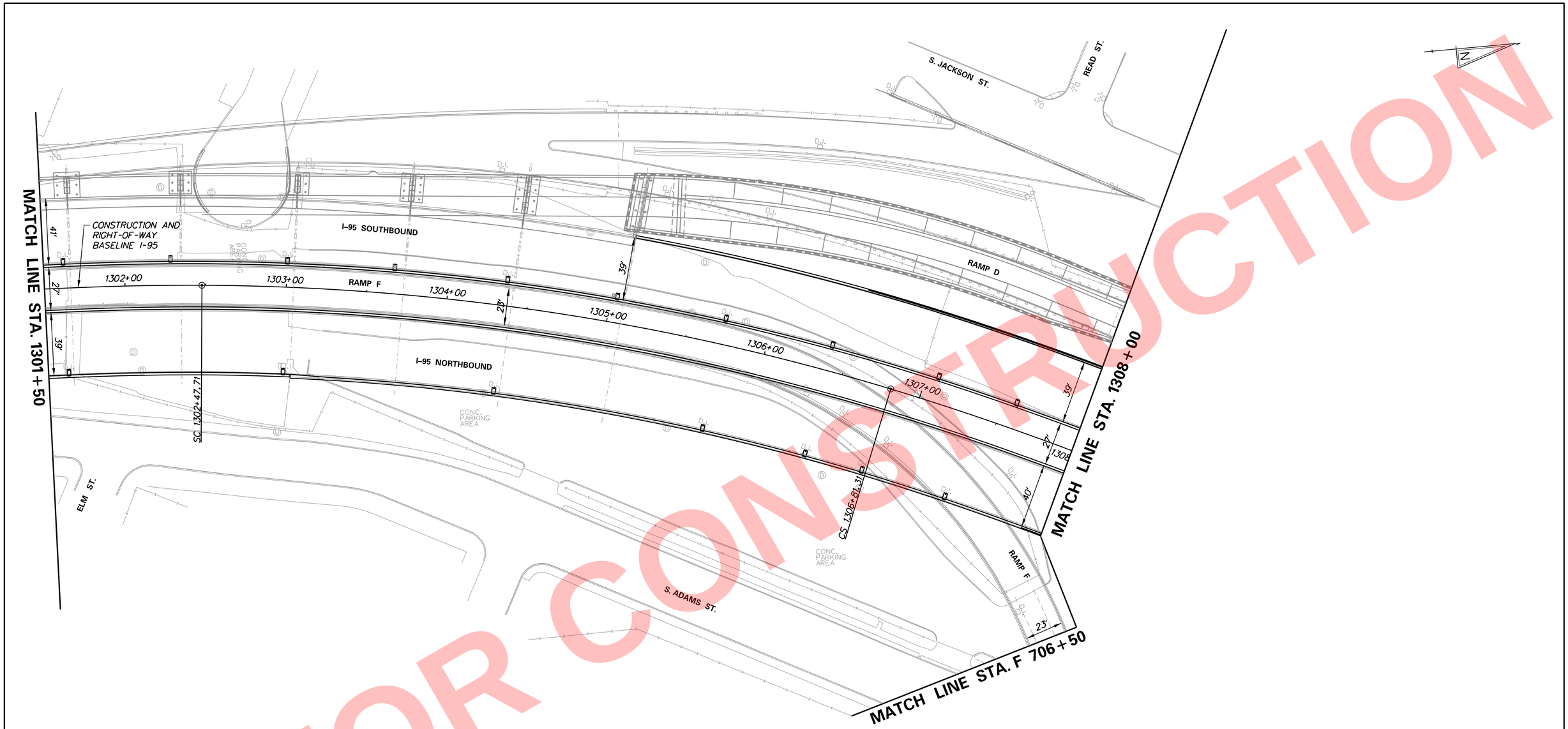
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	1-758 F
T201407404	DESIGNED BY: DHW	
COUNTY		
NEW CASTLE	CHECKED BY: PAH	

GRADES AND GEOMETRICS

SHEET NO.	GG-15
	1-134
TOTAL SHTS.	
	1-178



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

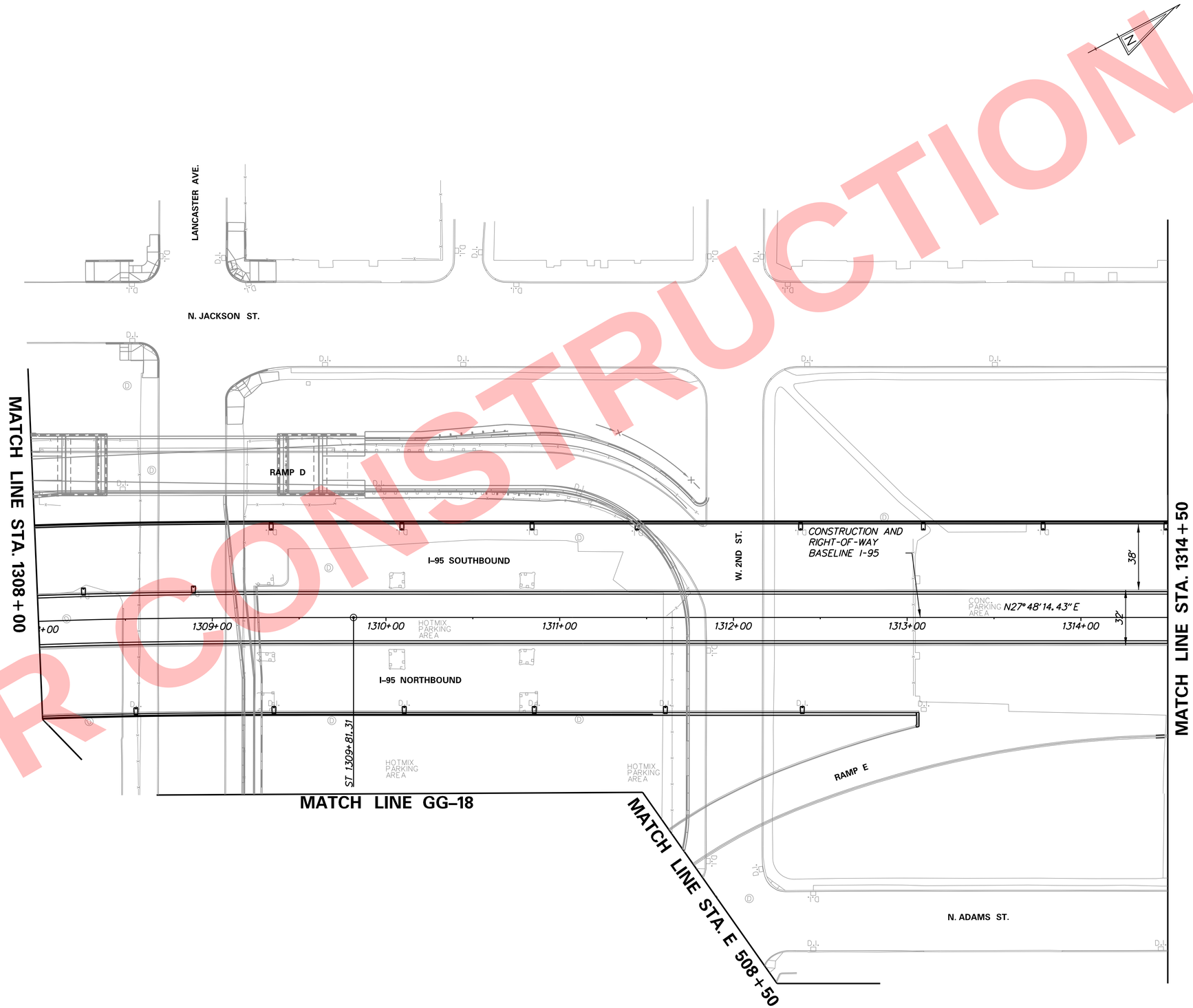
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-16
SECTION
WRA
SHEET NO.
135



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

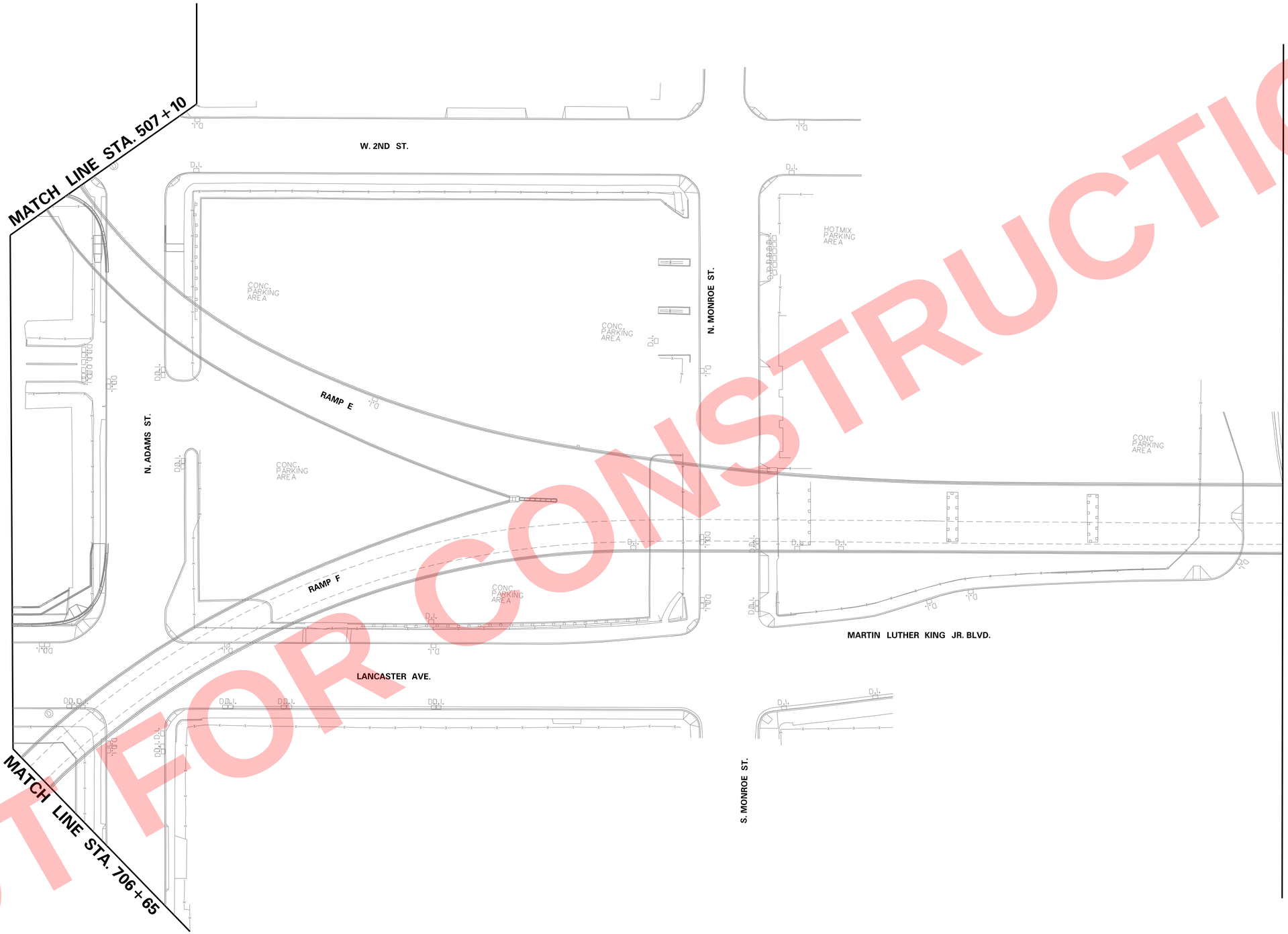
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-17
SECTION
WRA
SHEET NO.
136



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

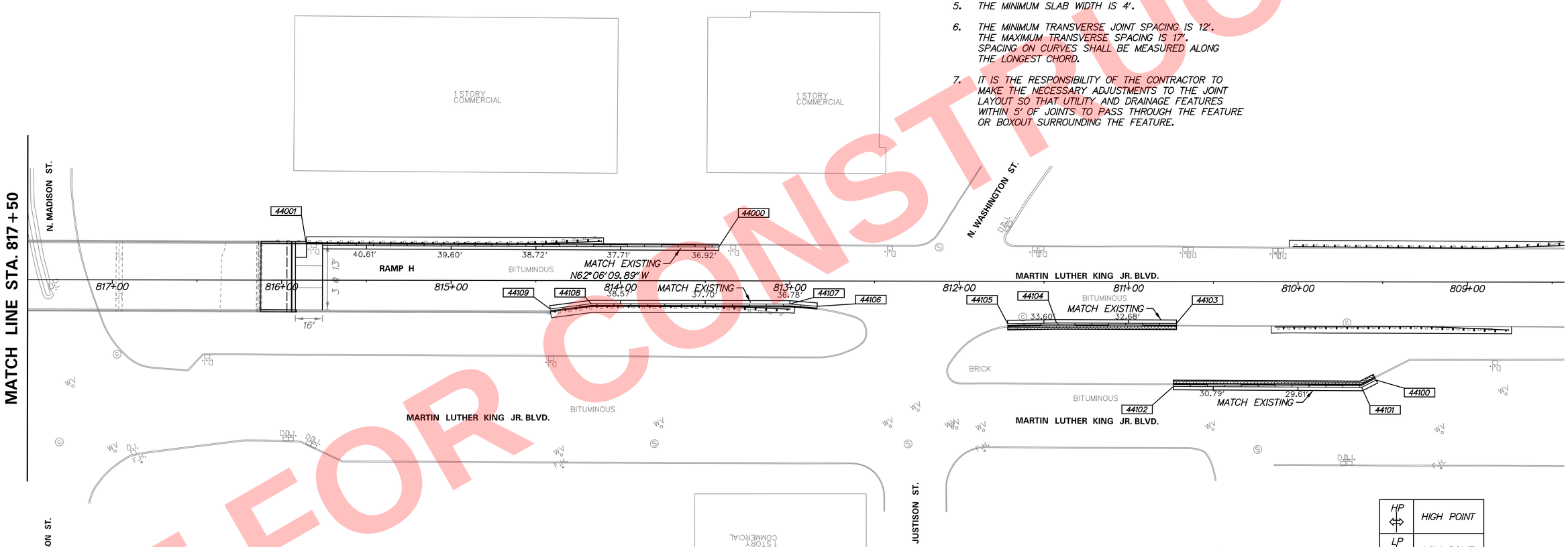
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-18
SECTION
WRA
SHEET NO.
137



JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

SPECIAL NOTE: ALL CONCRETE PANELS SHOWN ON THIS SHEET SHALL BE CLASS A CONCRETE AND SHALL REQUIRE THE USE OF NONFERROUS REINFORCEMENT FIBERS AT A RATE OF 1.5 POUNDS PER CUBIC YARD. CLASS A CONCRETE AND NONFERROUS FIBERS SHALL BE INCIDENTAL TO ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"

HP	HIGH POINT
LP	LOW POINT

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
44000	813+41.22	20.00	633874.9668	616501.1094
44001	815+85.41	20.52	633989.3208	616286.2230
44100	809+53.89	-57.97	633624.4664	616807.6249
44101	809+62.37	-62.32	633624.5898	616798.0965
44102	810+73.47	-61.95	633676.9073	616700.0794
44103	810+71.71	-24.72	633708.9772	616719.0533
44104	811+42.57	-24.59	633742.2517	616656.4938
44105	812+71.41	-25.09	633755.3069	616630.7651
44106	812+83.84	-14.98	633816.8453	616536.1290
44107	812+99.96	-13.64	633825.5722	616522.5158
44108	814+17.24	-13.64	633880.4481	616418.8612
44109	814+41.46	-16.82	633888.9694	616395.9684

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

NOT FOR CONSTRUCTION

GG-19

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT T201407404
COUNTY NEW CASTLE
BRIDGE NO.
DESIGNED BY: DHW
CHECKED BY: PAH

GRADES AND GEOMETRICS

SHEET NO. 1-138
TOTAL SHTS. 1-178

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
41000	1320+97.48	-51.91'	635385.1221	615814.8261
41001	1321+29.73	-51.91'	635413.6487	615829.8690
41006	1320+90.98	-19.95'	635364.4656	615840.0629
41007	1320+90.98	-15.29'	635362.2888	615844.1907
41008	1320+93.48	-15.29'	635364.5002	615845.3569
41010	1320+93.48	15.38'	635350.1958	615872.4830
41011	1320+90.98	15.38'	635347.9844	615871.3169
41012	1320+90.98	20.05'	635345.8076	615875.4448
41013	1320+90.98	63.06'	635325.7462	615913.4882
41014	1320+93.44	63.06'	635327.9207	615914.6349
41015	1321+17.44	63.06'	635349.1499	615925.8297

JOINT LAYOUT NOTES:

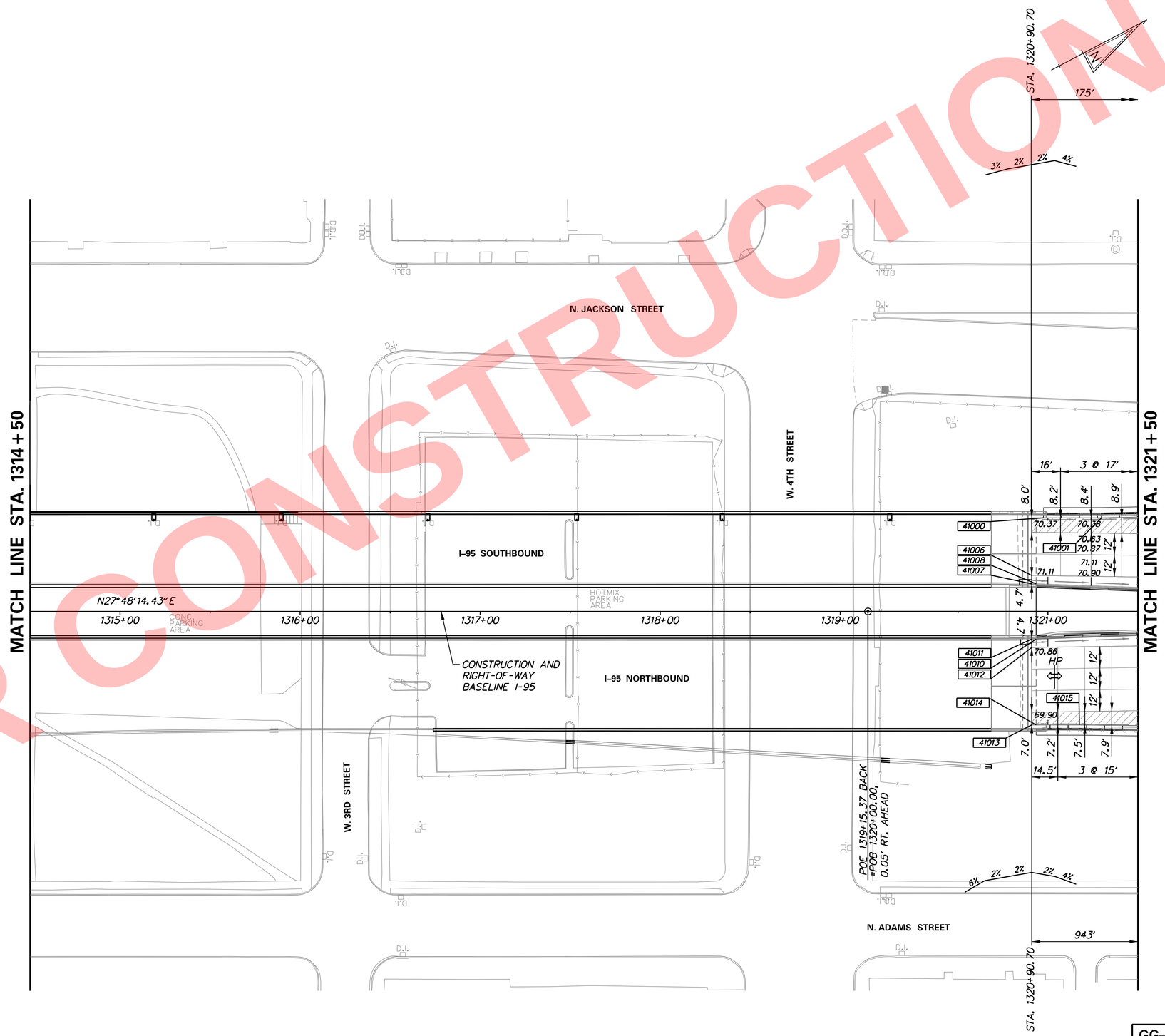
1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. MAXIMUM AND MINIMUM SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS

HP	HIGH POINT
LP	LOW POINT



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

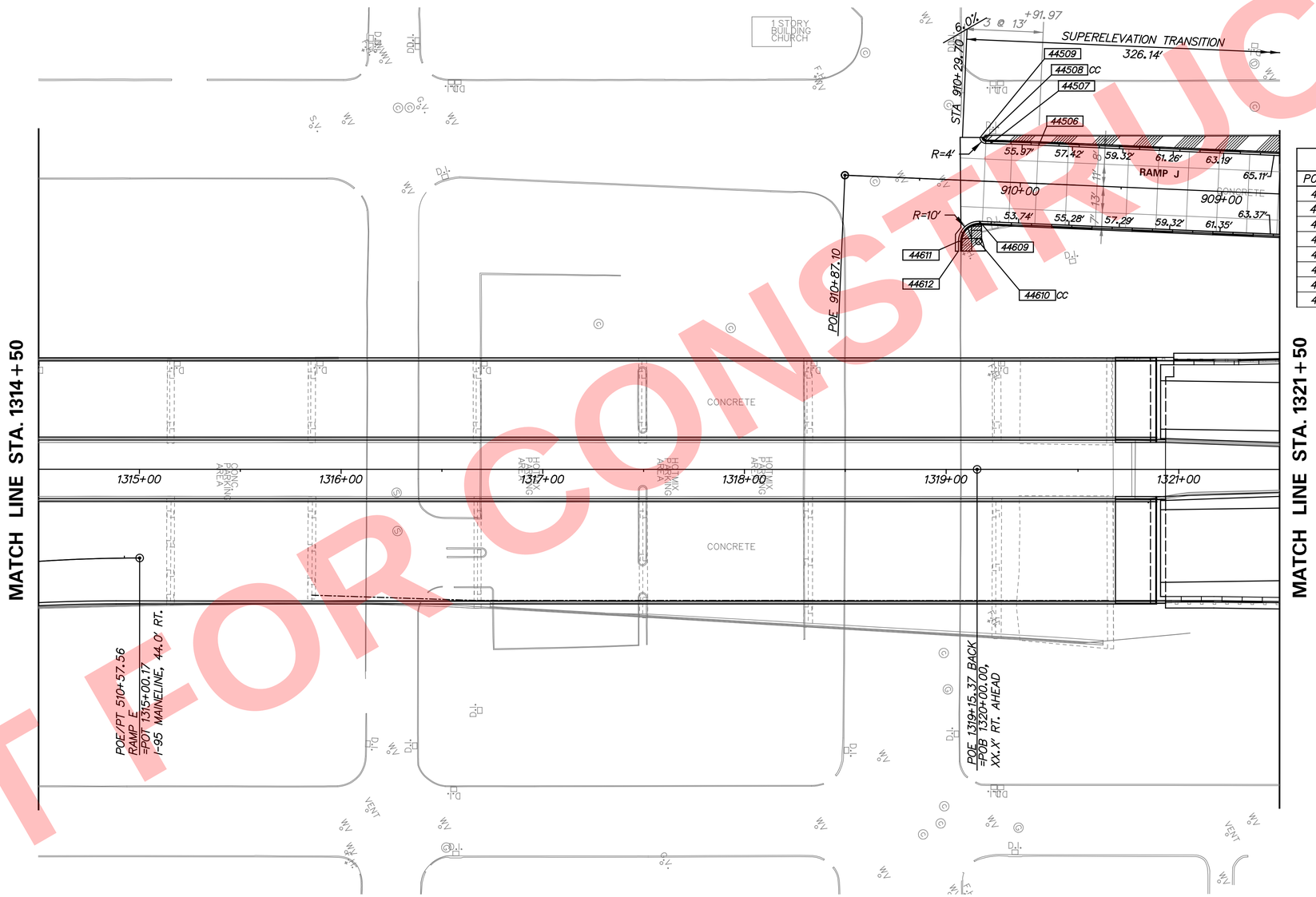
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-20
SECTION
WRA
SHEET NO.
139



HP	HIGH POINT
LP	LOW POINT

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
44506	909+91.68	19.00	635376.7152	615687.3310
44507	910+15.51	18.81	635356.0387	615675.4866
44508	910+18.12	21.64	635355.2160	615671.7255
44509	910+20.99	21.55	635352.6883	615670.3557
44609	910+19.46	-20.00	635333.0721	615707.0200
44610	910+19.46	-30.00	635328.0326	615715.6573
44611	910+29.45	-30.36	635319.2185	615710.9339
44612	910+29.27	35.22	635319.9238	615715.2158

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS.

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

NOT FOR CONSTRUCTION

GG-21

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	GRADES AND GEOMETRICS	SHEET NO.
T201407404	DESIGNED BY: DHW		1-140
COUNTY			TOTAL SHTS.
NEW CASTLE	CHECKED BY: PAH		1-178

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
41002	1322+09.15	-53.50'	635484.6398	615865.5090
41003	1323+43.69	-53.50'	635603.6449	615928.2639
41004	1325+86.10	-60.96'	635821.5493	616034.7390
41005	1325+93.68	-61.19'	635828.3600	616038.0670
41009	1323+55.19	-6.00'	635591.6598	615975.6435
41016	1323+01.44	65.50'	635510.7673	616013.8188
41017	1324+98.77	65.50'	635685.3138	616105.8623
41018	1323+59.25	6.00'	635589.6499	615988.1499

JOINT LAYOUT NOTES:

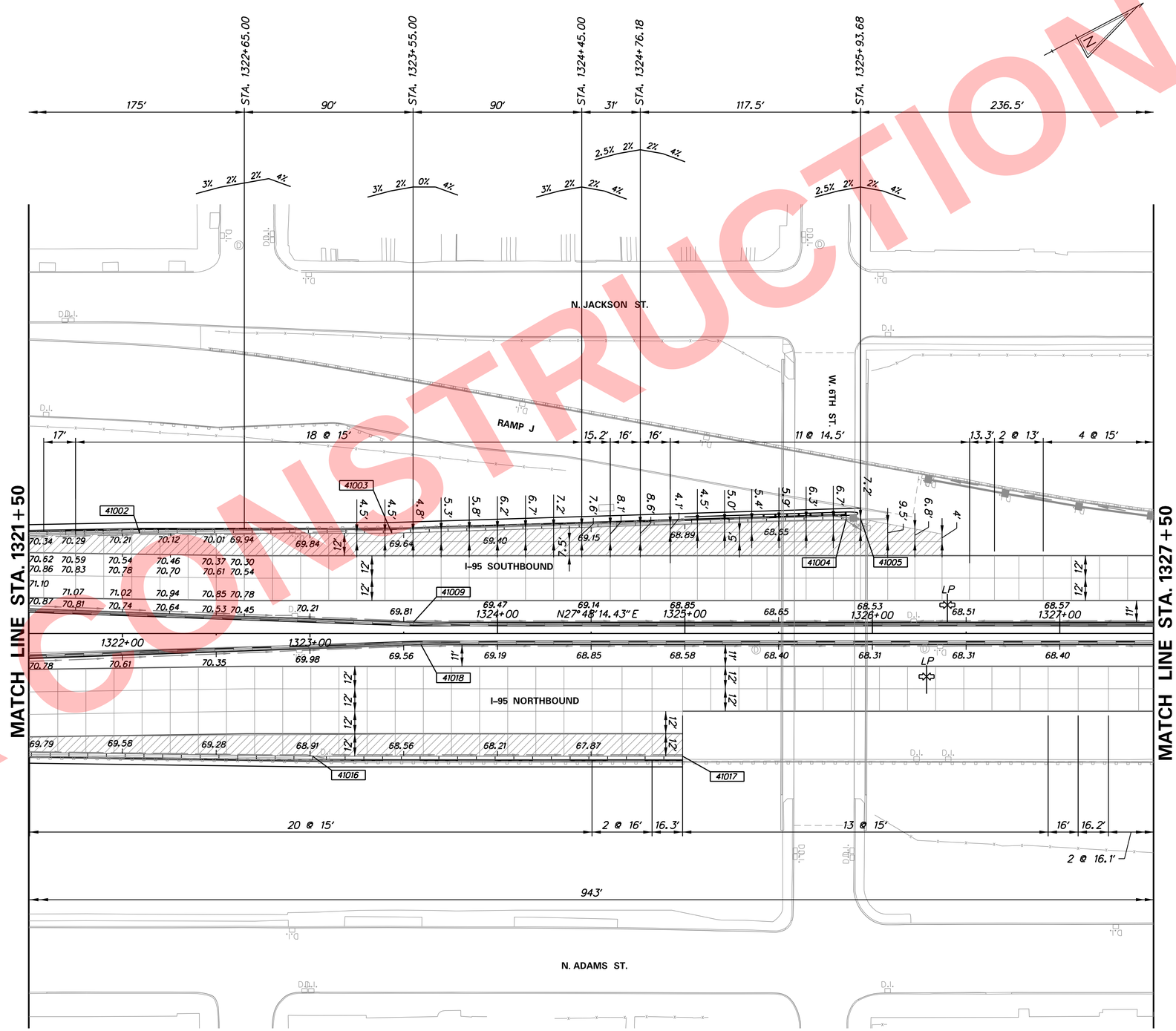
1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. MAXIMUM AND MINIMUM SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS

HP	HIGH POINT
LP	LOW POINT



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

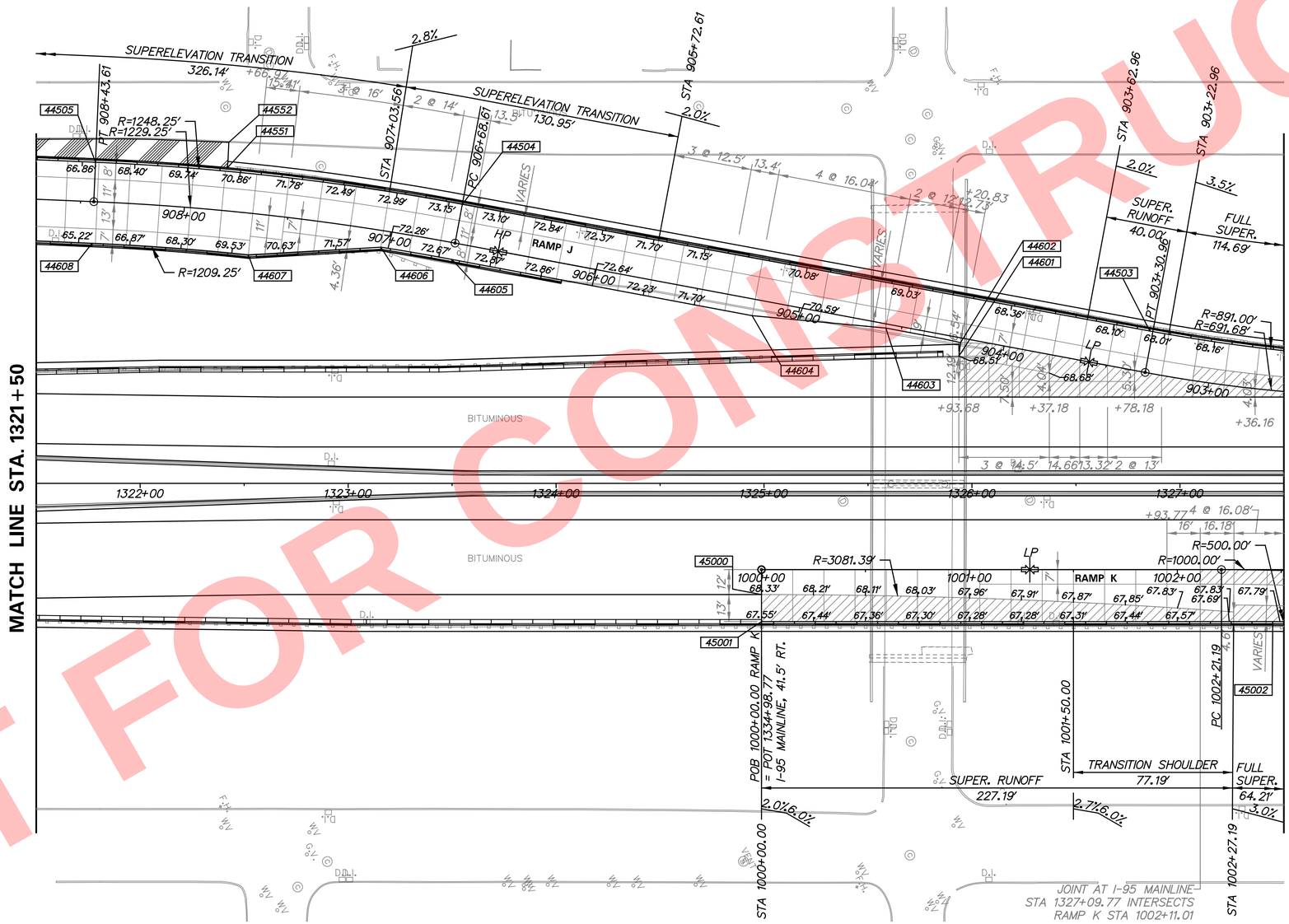
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	CHECKED BY: BRT
NEW CASTLE	

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-22
SECTION
WRA
SHEET NO.
141



HP	HIGH POINT
LP	LOW POINT

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
44503	903+32.47	20.00	635915.2005	616070.2093
44504	906+68.61	19.00	635651.2222	615862.1143
44505	908+43.61	19.00	635504.6144	615761.9547
44551	907+81.17	20.67	635559.4542	615793.8880
44552	907+81.68	32.91	635565.7628	615783.3861
44601	904+20.48	8.78	635828.3600	616038.0669
44602	904+20.83	2.25	635832.1424	616032.7331
44603	904+57.44	2.00	635803.6163	616009.7836
44604	905+21.72	-8.00	635749.4902	615974.5133
44605	906+68.61	-8.00	635634.4442	615883.2684
44606	907+03.56	-8.00	635606.9304	615862.0771
44607	907+66.97	-20.00	635548.8501	615835.6370
44608	908+43.61	-20.00	635484.9603	615795.6403
45000	1000+00.00	12.00	635690.9065	616095.2452
45001	1000+00.00	25.00	635684.8459	616106.7461
45002	1002+46.49	24.69	635902.3227	616221.4280

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS.

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

NOT FOR CONSTRUCTION

GG-23

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	CHECKED BY: PAH
NEW CASTLE	

GRADES AND GEOMETRICS

SHEET NO. 1-142

TOTAL SHTS. 1-178

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
41019	1328+31.25	-59.14'	636037.5487	616150.6950
41020	1328+34.22	-59.09'	636040.1503	616152.1263
41021	1328+46.00	-57.00'	636049.5966	616159.4706
41022	1328+53.25	-57.00'	636056.0096	616162.8524
41023	1329+08.75	-57.00'	636105.1020	616188.7403
41024	1331+66.73	-57.00'	636333.2938	616309.0726
41025	1332+22.23	-57.00'	636382.3862	616334.9605
41026	1330+93.00	61.04'	636213.0191	616379.0930
41027	1330+99.19	60.85'	636218.5814	616381.8110
41028	1331+43.42	59.49'	636258.3389	616401.2378
41029	1333+38.00	53.50'	636433.2497	616486.7048

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
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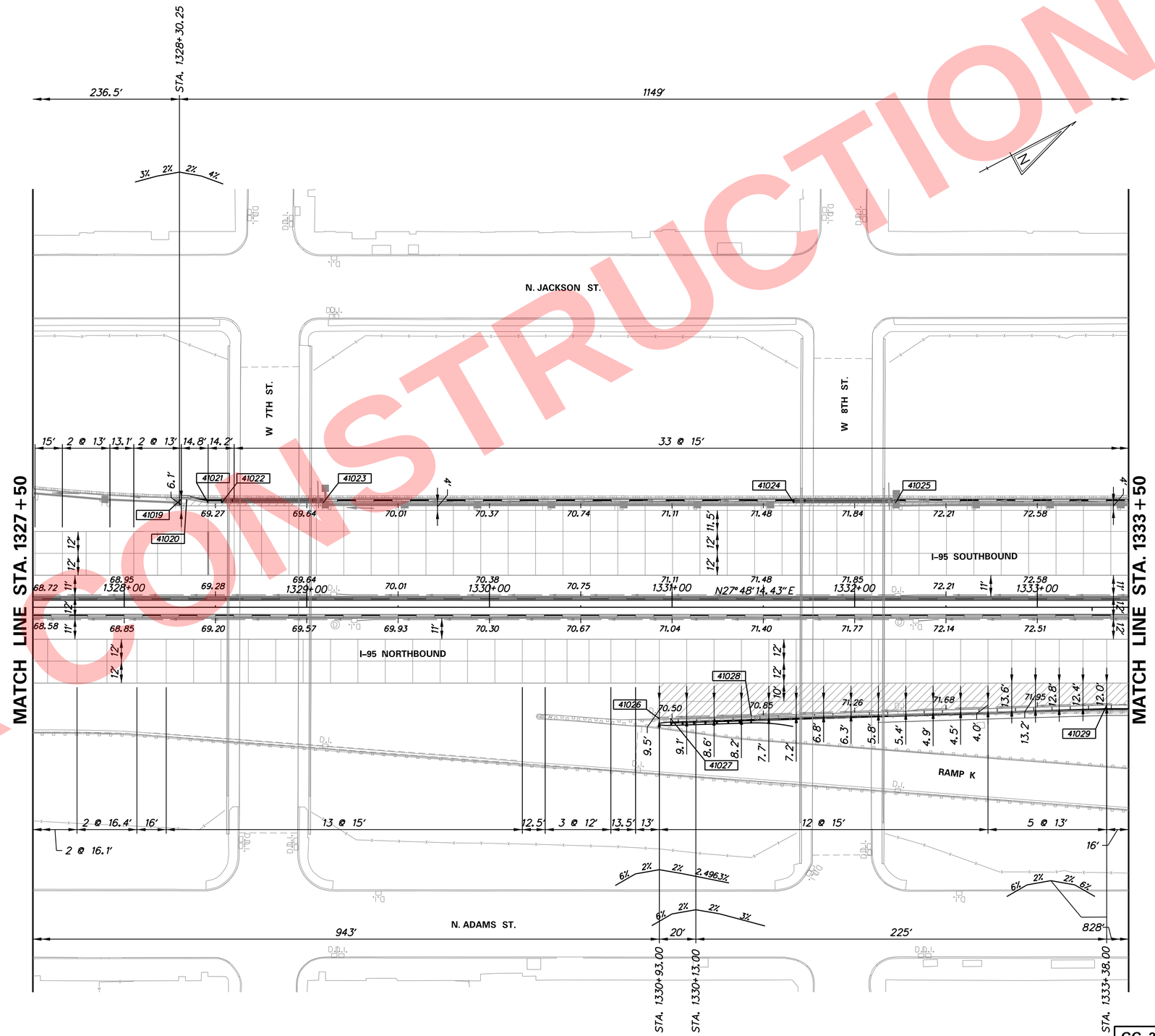
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS

HP	HIGH POINT
LP	LOW POINT



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

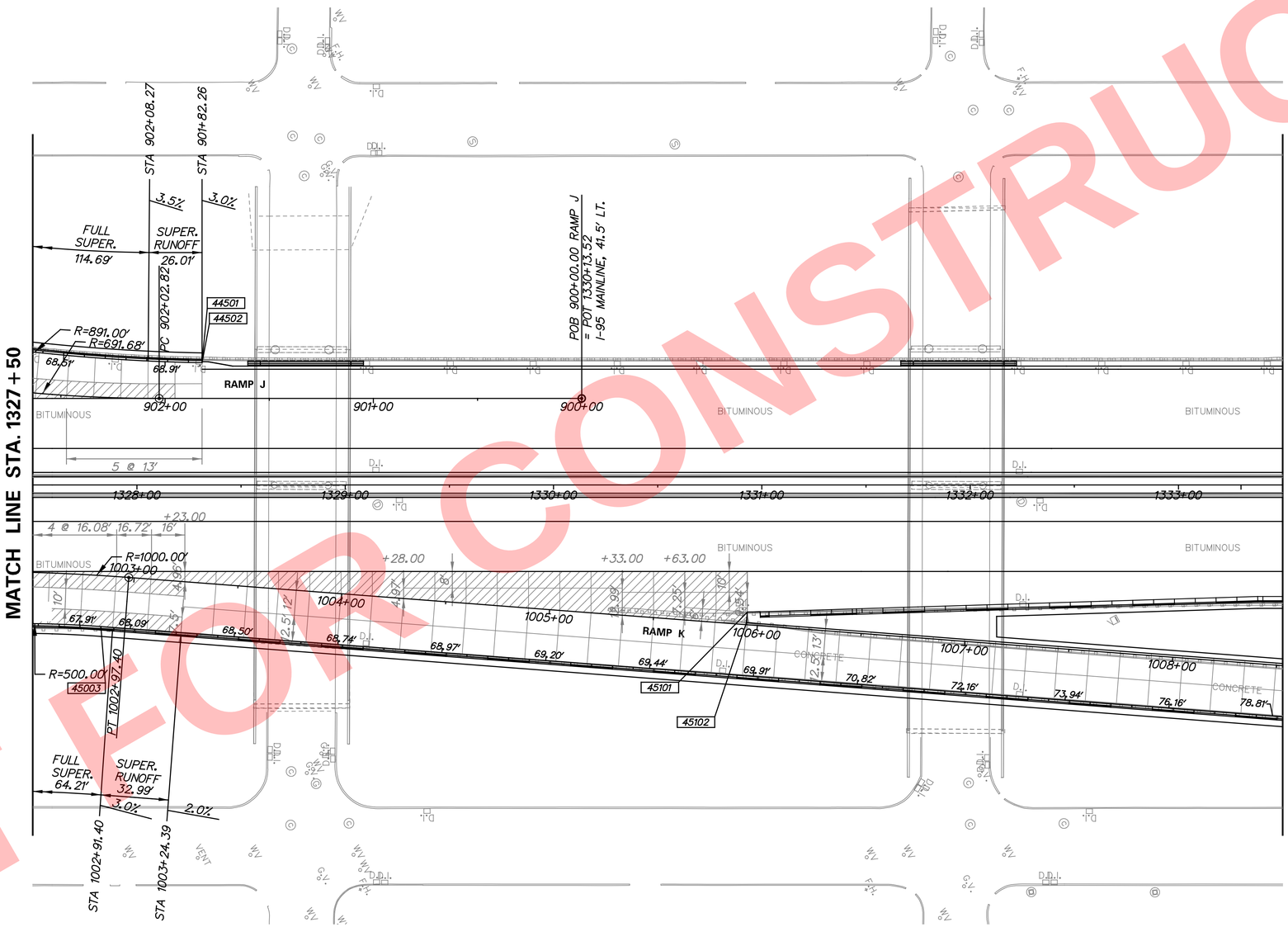
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	CHECKED BY: BRT
NEW CASTLE	

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-24

SECTION	SHEET NO.
WRA	143



HP	HIGH POINT
LP	LOW POINT

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
44501	901+82.26	17.64	636037.5490	616150.6952
44502	901+82.26	17.14	636037.3157	616151.1375
45003	1002+85.55	24.43	635935.3175	616240.4678
45101	1005+94.71	-6.02	636213.0191	616379.0930
45102	1005+94.72	-1.00	636210.3507	616383.3415

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
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JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
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6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GG-25

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	CHECKED BY: PAH
NEW CASTLE	

GRADES AND GEOMETRICS

SHEET NO. 1-144
TOTAL SHTS. 1-178

NOT FOR CONSTRUCTION

COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
41030	1333+70.25	53.50'	636461.7753	616501.7472
41031	1333+70.25	55.00'	636461.0756	616503.0740
41032	1336+87.81	-57.00'	636794.2168	616552.1309
41033	1337+42.31	-57.00'	636842.4247	616577.5524
41034	1337+76.57	-57.00'	636872.7239	616593.5300

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
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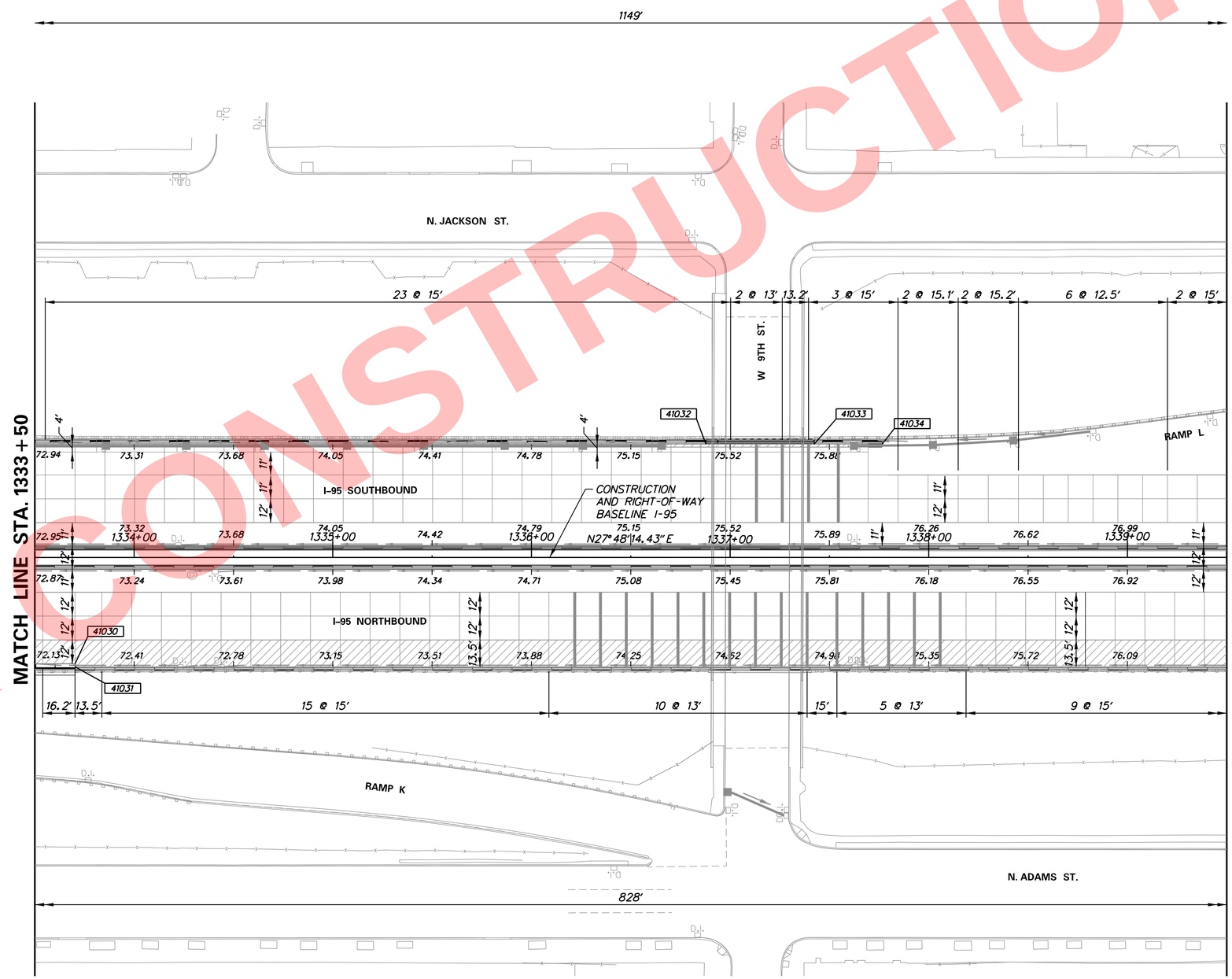
HP	HIGH POINT
LP	LOW POINT



NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

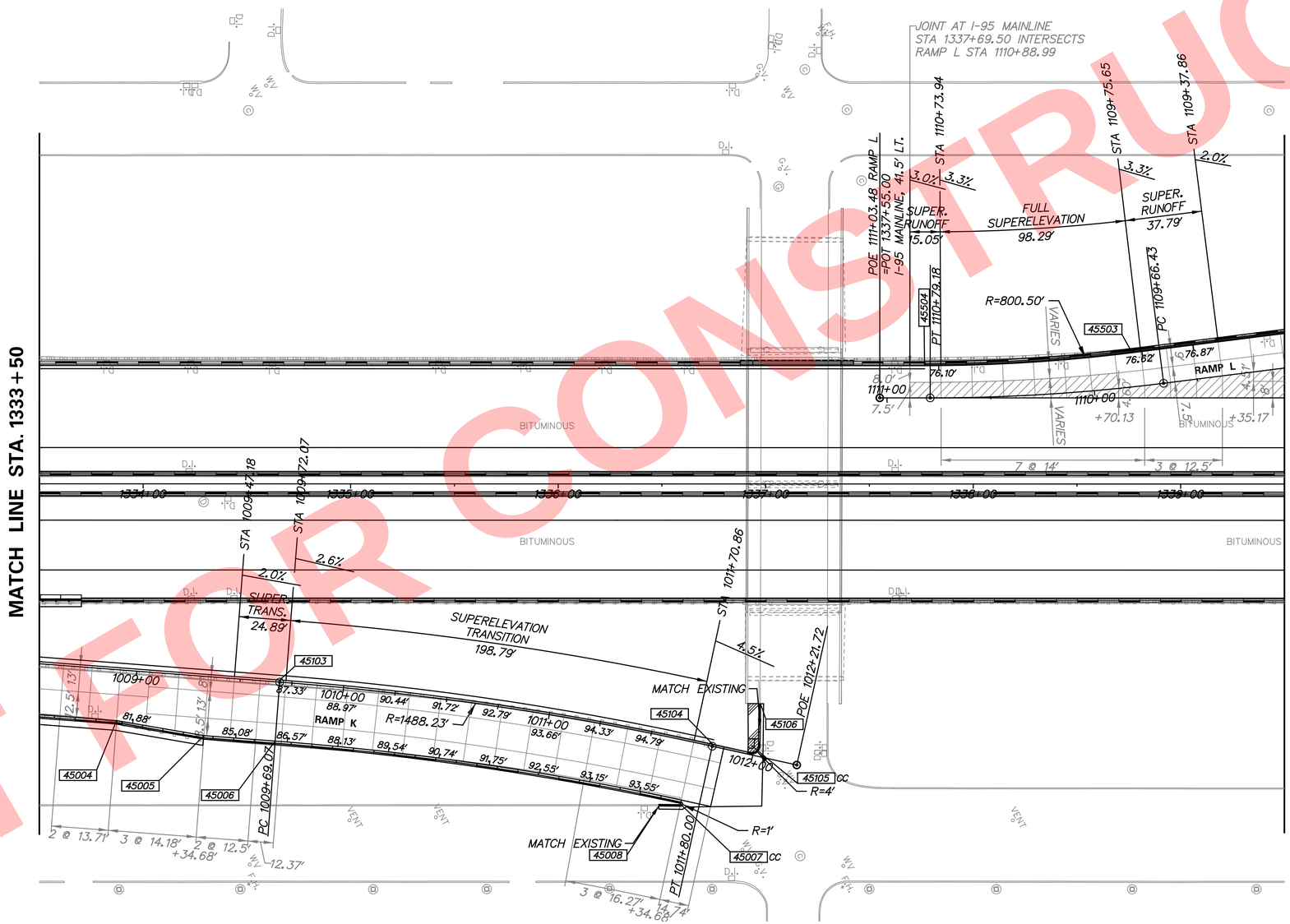
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-26

SECTION	SHEET NO.
WRA	145



HP	HIGH POINT
LP	LOW POINT

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
45004	1008+92.14	24.50	636448.5356	616563.2876
45005	1009+34.68	28.50	636482.4140	616589.3230
45006	1009+69.07	28.50	636511.5216	616607.6320
45007	1011+70.92	30.50	636670.1724	616725.6030
45008	1011+60.68	33.54	636660.5281	616721.5408
45103	1009+69.07	-1.00	636527.2285	616582.6611
45104	1011+80.00	-1.00	636697.3439	616707.3064
45105	1011+98.52	-4.39	636713.6606	616716.7016
45106	1011+98.27	25.07	636726.8487	616700.7603
45503	1109+79.88	16.40	636964.1294	616634.6379
45504	1110+81.92	15.50	636872.7239	616593.5300

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
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5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

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JOINT LAYOUT NOTES:

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7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GG-27

NOT FOR CONSTRUCTION

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	CHECKED BY: PAH
NEW CASTLE	

GRADES AND GEOMETRICS

SHEET NO. 1-146
TOTAL SHTS. 1-178

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
41035	1339+78.91	-55.00'	637050.7724	616689.6813
41036	1340+02.88	-55.00'	637071.9739	616700.8615
41037	2343+21.85	-37.50'	637354.1189	616849.6449
41038	2343+21.85	11.50'	637331.2629	616892.9878
41039	1343+00.00	6.00'	637306.3404	616893.4117
41040	1343+00.00	55.00'	637283.4845	616936.7545
41041	1344+61.74	37.50'	637420.0214	617016.8457
41042	1344+88.82	37.50'	637442.1457	617031.4455
41043	1344+96.22	37.50'	637448.1598	617035.4980
41044	1344+96.22	36.00'	637449.0006	617034.2558
41046	1344+59.81	-11.50'	637445.0666	616974.6862
41047	1345+13.94	-11.50'	637490.3450	617004.9887
41048	2344+66.75	11.50'	637455.5797	616965.4252
41049	2345+22.13	11.50'	637501.4124	616995.8535
41050	2344+92.66	-37.50'	637504.2020	616938.6240
41051	2345+12.23	-36.50'	637520.2552	616950.5943

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
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GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
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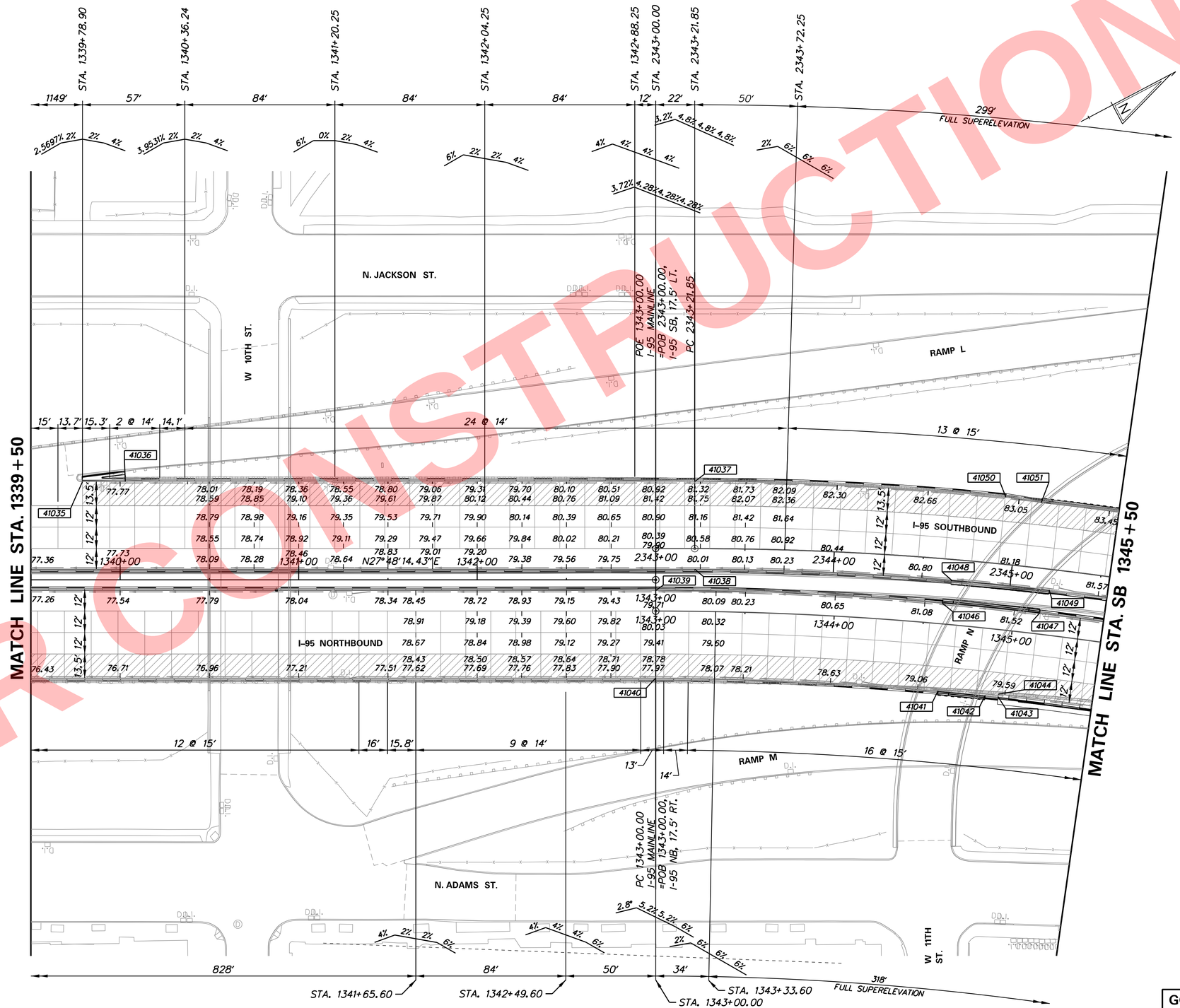
HP	HIGH POINT
LP	LOW POINT



NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-28

SECTION	SHEET NO.
WRA	147

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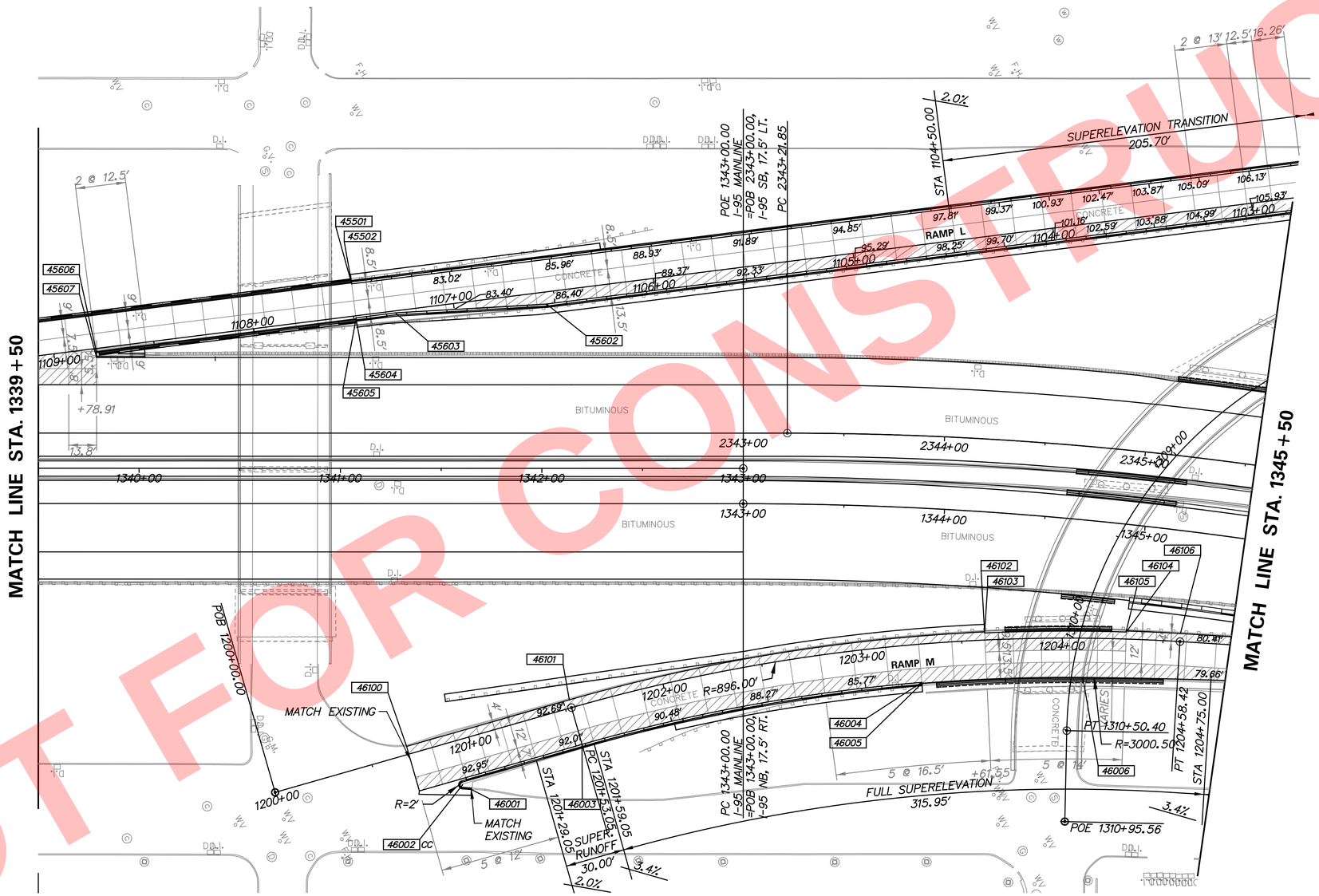


HP	HIGH POINT
LP	LOW POINT

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
45501	1107+48.94	16.00	637179.8676	616716.3736
45502	1107+48.94	16.50	637180.0437	616715.9056
45602	1106+54.18	-6.00	637260.7960	616770.7721
45603	1107+29.18	-1.00	637192.3647	616739.2433
45604	1107+48.93	-1.00	637173.8805	616732.2862
45605	1107+48.93	-1.50	637173.7047	616732.7532
45606	1108+78.97	-1.50	637052.0029	616686.9453
45607	1108+79.16	-4.49	637050.7724	616689.6813
46001	1200+94.09	25.44	637115.3927	616966.2001
46002	1200+90.53	22.00	637112.6142	616962.1070
46003	1201+53.05	19.00	637174.4164	616971.9947
46004	1203+28.55	19.00	637338.0290	617023.4194
46005	1203+28.55	19.50	637337.8332	617023.8795
46006	1204+10.31	19.50	637409.8942	617058.5195
46100	1200+69.05	-4.00	637096.9218	616932.2531
46101	1201+53.05	-4.00	637179.1344	616949.4838
46102	1203+61.55	-4.00	637377.2907	617015.7992
46103	1203+61.55	-3.50	637377.0780	617016.2518
46104	1204+31.62	-3.50	637439.5105	617048.6278
46105	1204+31.62	-4.00	637439.7578	617048.1933
46106	1204+58.42	-4.00	637462.9465	617061.8565

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS.

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

NOT FOR CONSTRUCTION

GG-29

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	CHECKED BY: PAH
NEW CASTLE	

GRADES AND GEOMETRICS

SHEET NO. 1-148

TOTAL SHTS. 1-178

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
41045	1346+04.60	36.00'	637535.0877	617096.4085
41052	2345+76.84	-36.50'	637574.1305	616988.6790
41053	2345+96.41	-37.50'	637590.7703	616999.8196
41054	2347+53.72	-37.50'	637714.5475	617102.3092
41055	2347+49.62	11.50'	637678.5741	617135.8358
41056	1347+33.08	-11.50'	637663.6230	617141.2022
41057	1348+48.38	-11.50'	637749.7361	617217.8772
41058	1348+78.38	-10.00'	637771.1440	617238.9473
41059	2348+90.06	11.17'	637782.7253	617230.0106
41060	2350+10.06	10.88'	637871.7339	617310.4933
41061	1350+00.88	-10.00'	637862.6330	617320.4091
41062	1350+30.88	-11.50'	637886.0359	617339.2386
41063	1351+00.31	-11.30'	637937.7529	617385.2874
41064	2350+98.08	10.68'	637937.0471	617369.5503
41065	2350+17.63	-37.50'	637909.8731	617279.7784
41066	2350+31.19	-37.50'	637919.9046	617288.8929
41067	2350+42.63	-38.00'	637928.7125	617296.2200
41068	2350+69.33	-39.67'	637949.5971	617312.9375
41069	2350+81.30	-38.86'	637957.9151	617321.5869
41070	2350+81.48	-41.44'	637959.7771	617319.7962
41071	2350+69.51	-42.25'	637951.4592	617311.1468
41072	2350+31.88	-49.04'	637928.1749	617280.8183
41073	1348+81.35	40.50'	637739.7782	617278.6366
41074	1350+74.09	40.50'	637883.7273	617406.8089

JOINT LAYOUT NOTES:

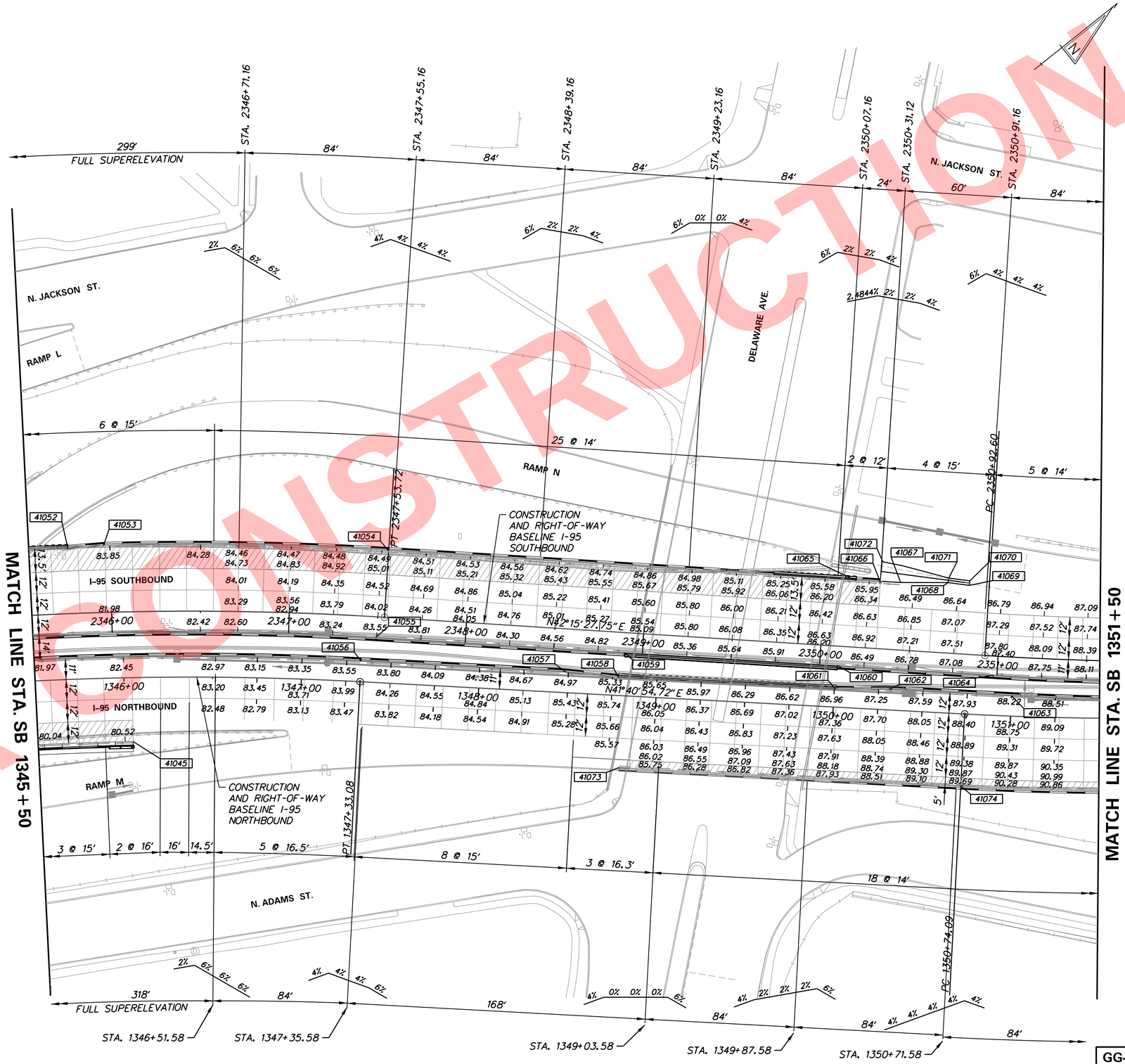
1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. MAXIMUM AND MINIMUM SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS

HP	HIGH POINT
LP	LOW POINT



ADDENDA / REVISIONS	

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-30

SECTION: WRA

SHEET NO. 149

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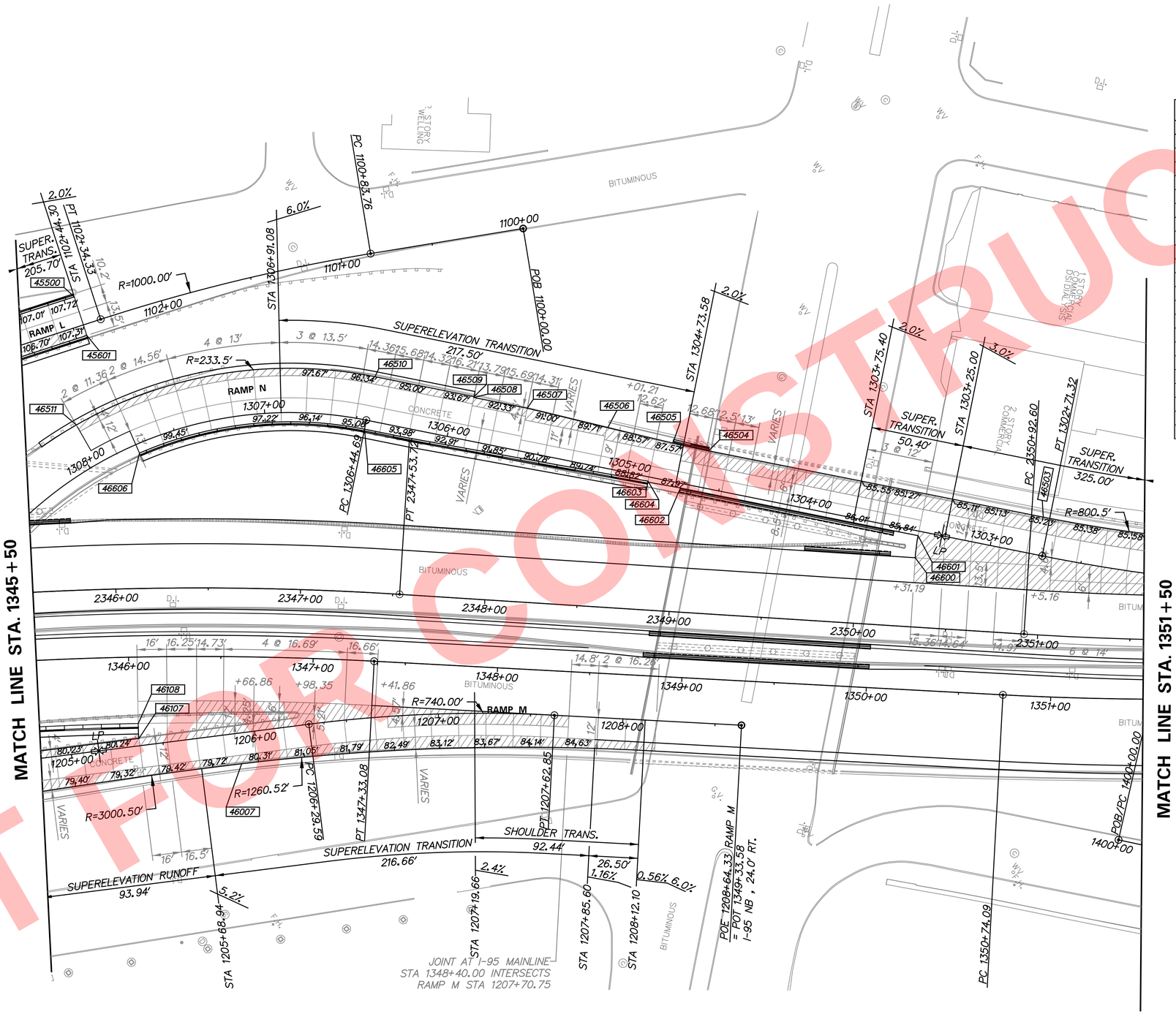


HP	HIGH POINT
LP	LOW POINT

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
45500	1102+44.17	16.00	637652.2741	616894.1823
45601	1102+44.17	-6.00	637644.5244	616914.7721
46007	1205+90.79	16.67	637565.2232	617148.4036
46107	1205+37.38	-4.00	637530.3741	617102.9567
46108	1205+38.00	-12.04	637535.0877	617096.4085
46109	1206+64.41	-6.60	637640.0158	617167.7153
46503	1302+74.90	20.71	637987.8071	617314.9665
46504	1304+59.68	20.18	637868.5853	617173.7972
46505	1304+79.49	20.52	637856.1042	617158.4107
46506	1305+15.64	21.85	637833.8761	617129.8719
46507	1305+60.51	23.50	637806.2812	617094.4424
46508	1305+90.00	23.50	637787.3205	617071.8617
46509	1305+90.00	24.00	637787.7034	617071.5401
46510	1306+44.69	24.00	637752.5352	617029.6574
46511	1307+94.92	24.00	637609.8112	616949.1165
46600	1303+38.53	-14.53	637919.9046	617288.8929
46601	1303+39.40	-2.50	637928.5578	617280.4968
46602	1304+70.68	-2.50	637844.1356	617179.9564
46603	1304+88.58	-2.86	637832.3473	617166.4801
46604	1304+88.59	-2.36	637832.7239	617166.1509
46605	1306+44.69	-5.00	637730.3263	617048.3059
46606	1307+72.21	-5.00	637627.0086	616982.3760

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS.

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

NOT FOR CONSTRUCTION

GG-31

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

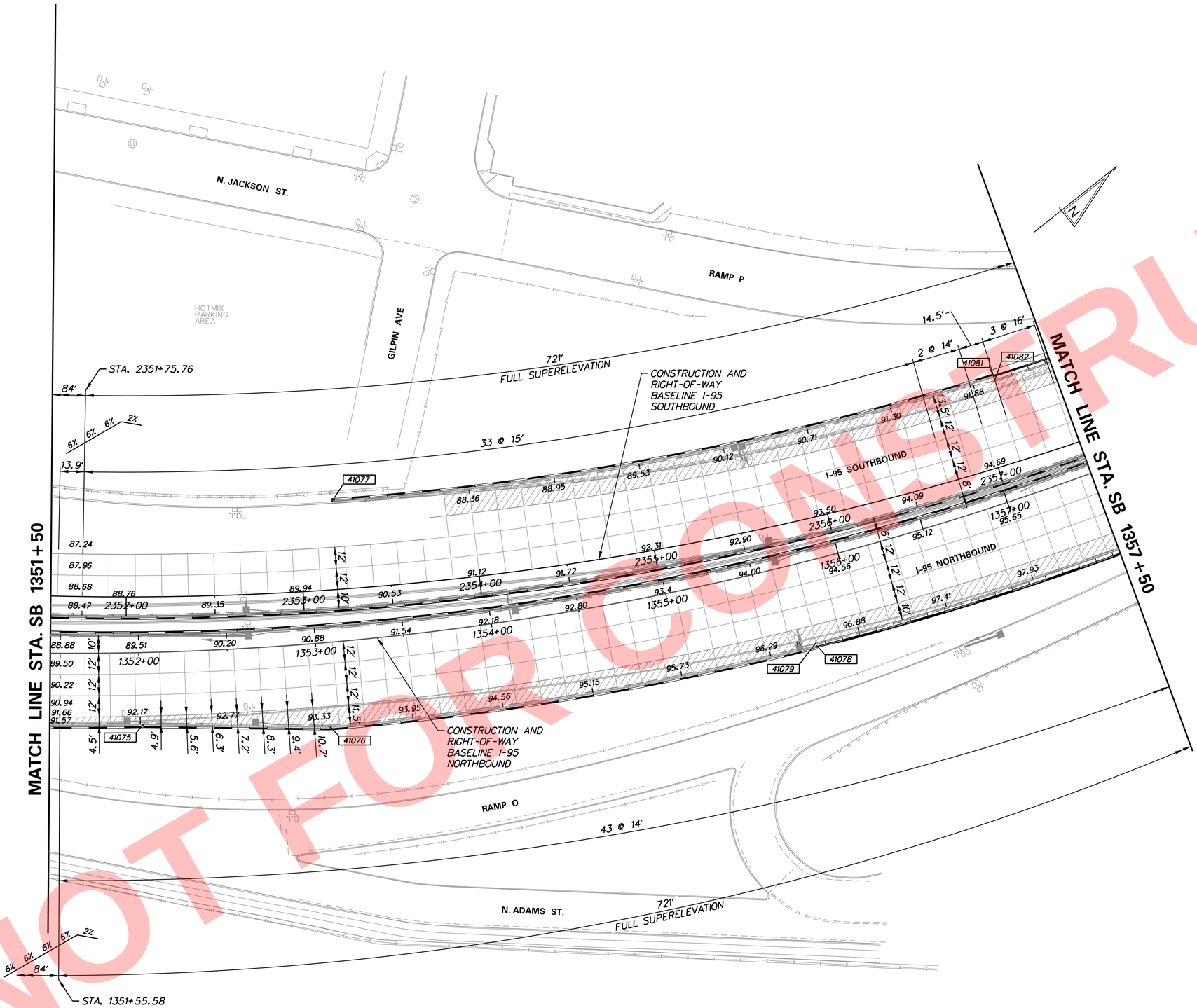
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	CHECKED BY: PAH
NEW CASTLE	

GRADES AND GEOMETRICS

SHEET NO. 1-150

TOTAL SHTS. 1-178



COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
41075	1352+01.69	40.50'	637984.5532	617489.9103
41076	1353+04.21	47.50'	638066.0721	617556.7704
41077	2353+19.67	-49.50'	638146.0017	617458.1994
41078	1355+75.58	47.50'	638309.5485	617692.5472
41079	1355+75.58	46.00'	638310.1705	617691.1822
41081	2357+12.90	-49.50'	638482.4883	617636.6952
41082	2357+12.89	-48.00'	638481.9423	617638.0924

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. MAXIMUM AND MINIMUM SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS

HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

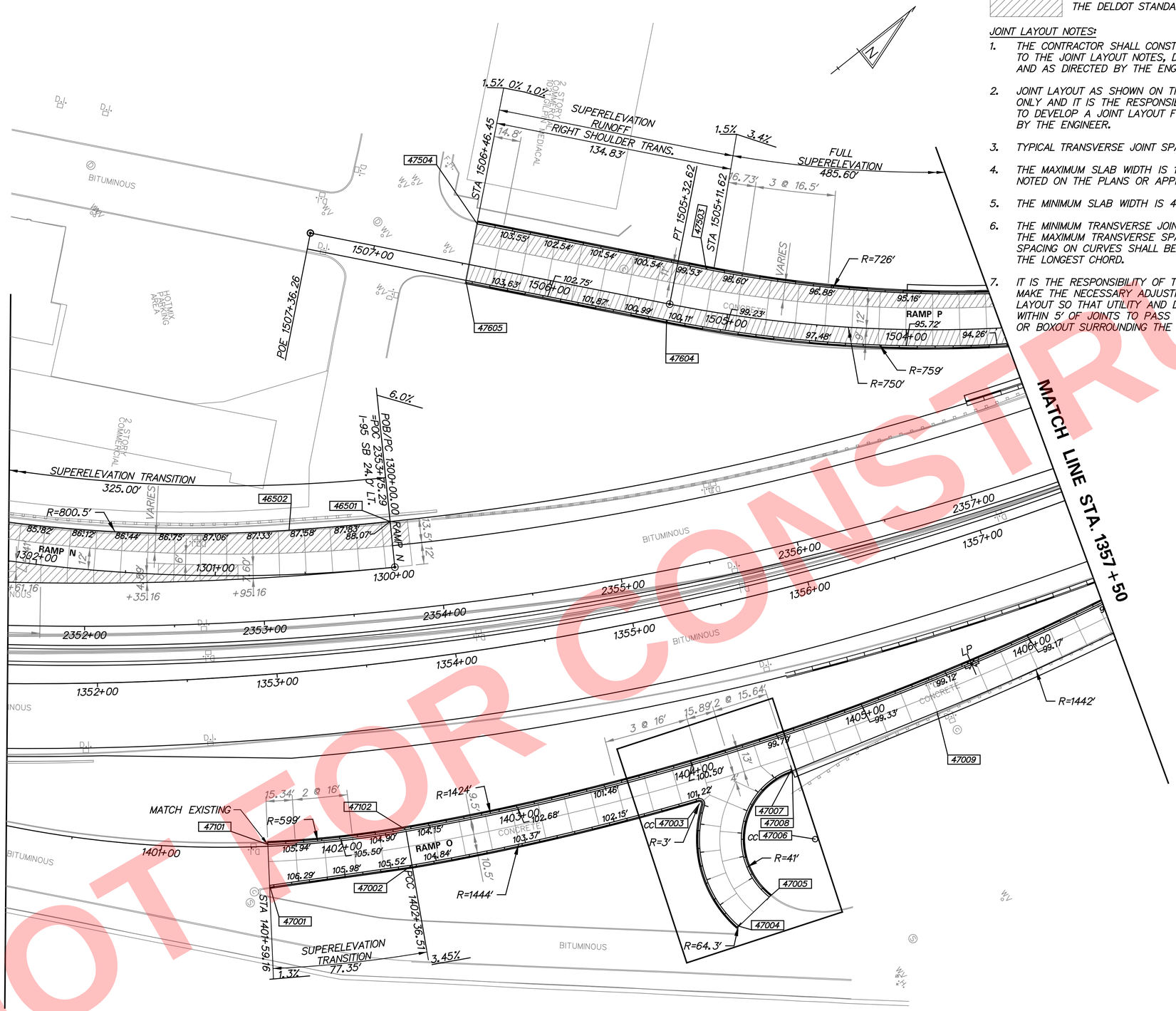
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

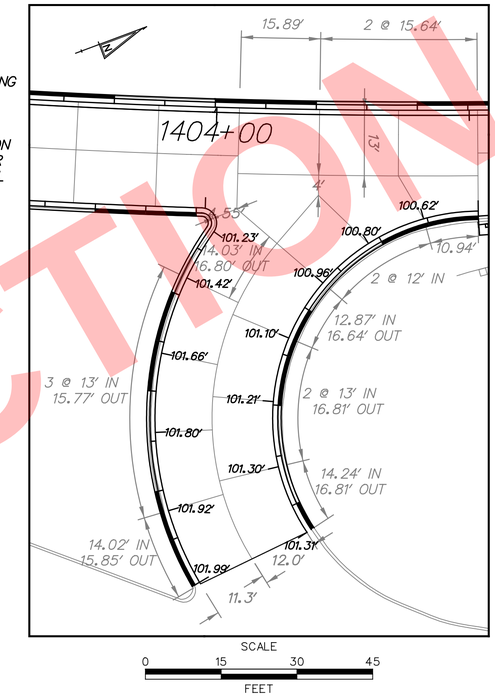
GG-32
SECTION WRA
SHEET NO. 151



AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS.

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.



GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
46501	1300+00.00	25.50	638190.9549	617488.1196
46502	1300+58.04	24.65	638144.0126	617456.8257
47001	1401+59.15	21.75	638012.3374	617604.3239
47002	1402+36.53	19.00	638081.2638	617644.9337
47003	1403+97.64	22.00	638227.3595	617718.0534
47004	1403+99.52	93.44	638202.1061	617784.9090
47005	1404+19.16	82.76	638225.4383	617782.7457
47006	1404+51.64	60.00	638265.3988	617773.5719
47007	1404+51.64	19.00	638279.5069	617735.0757
47008	1404+51.65	20.00	638279.1680	617736.0161
47009	1405+37.39	17.00	638362.5210	617760.5886
47101	1401+59.17	-1.00	638025.7834	617585.9754
47102	1402+36.51	-1.00	638090.8769	617627.3955
47503	1505+15.96	22.82	638415.8146	617488.2310
47504	1506+46.25	23.00	638332.0531	617389.0956
47604	1505+32.62	-9.00	638380.9462	617496.5449
47605	1506+46.41	-9.00	638307.5100	617409.6300

NOT FOR CONSTRUCTION

GG-33

DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DHW
COUNTY	
NEW CASTLE	CHECKED BY: PAH

GRADES AND GEOMETRICS

SHEET NO. 1-152
TOTAL SHTS. 1-178

NOTE:
IN CURB GUTTER AREAS, SPOT ELEVATIONS ARE FOR FRONT EDGE OF GUTTER.

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
41080	1358+04.16	46.00'	638529.8803	617773.6801
41083	2358+35.15	-48.00'	638594.0775	617677.2240
41084	2358+41.92	-48.00'	638600.3686	617679.1543
41085	2358+41.92	-52.00'	638601.5343	617675.3280
41086	2358+65.82	6.62'	638607.4549	617738.2303
41087	1358+68.63	-4.97'	638606.4179	617742.0939
41088	2359+48.29	5.64'	638687.7405	617758.3492
41089	1359+51.71	-4.96'	638687.0841	617761.2765
41090	1360+59.09	36.00'	638784.2354	617823.4408
41091	1361+01.87	-4.96'	638834.0312	617791.1350
41092	2360+97.84	5.40'	638834.5597	617788.1820
41093	2360+97.82	-36.00'	638841.9672	617747.4500
41094	2360+97.25	-49.00'	638843.7454	617734.5599
41095	1432+72.20	-56.04'	638872.2481	617739.5060

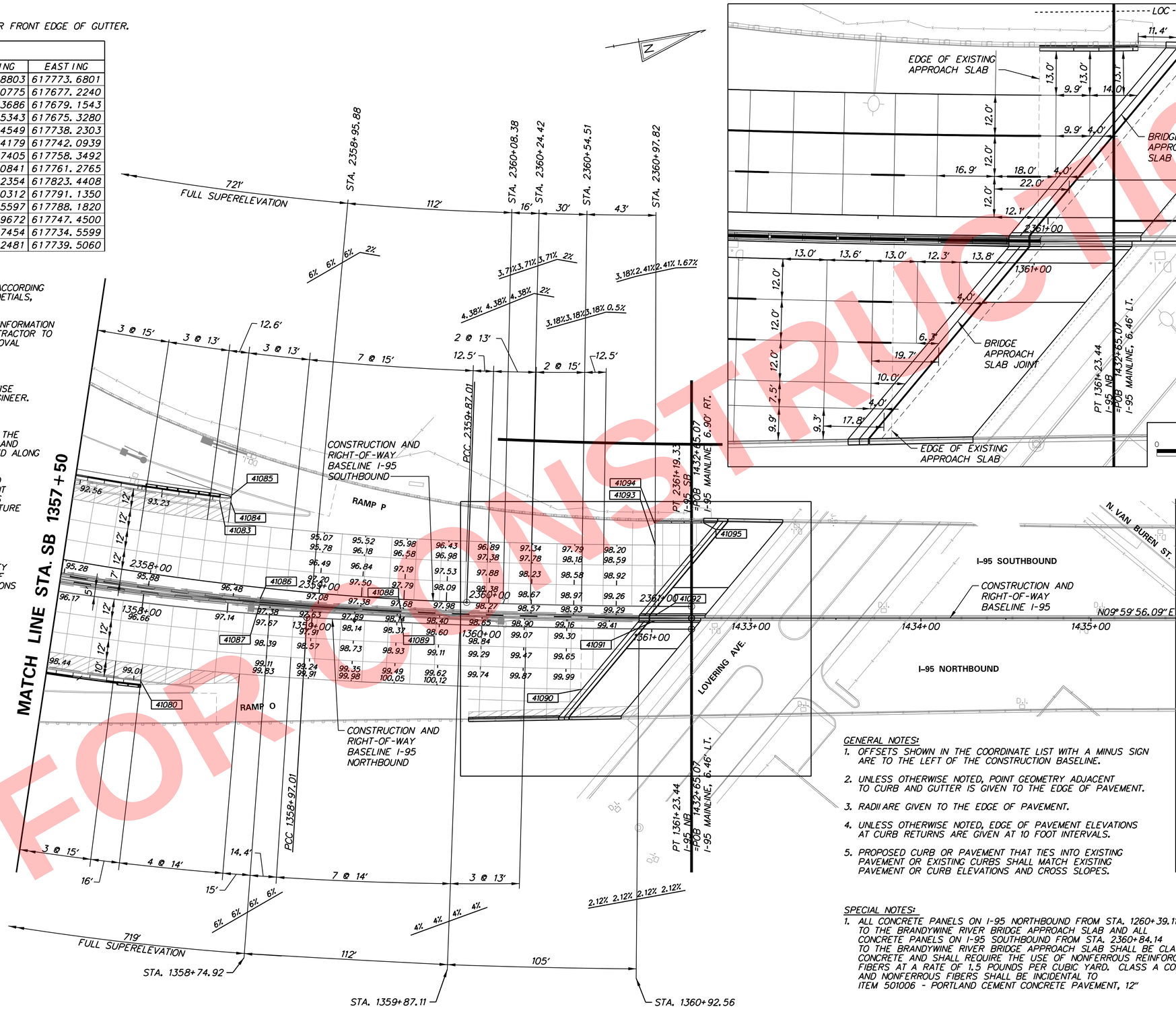
JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETIALS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS IS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. MAXIMUM AND MINIMUM SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS

HP — HIGH POINT

LP — LOW POINT



GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

SPECIAL NOTES:

1. ALL CONCRETE PANELS ON I-95 NORTHBOUND FROM STA. 1260+39.11 TO THE BRANDYWINE RIVER BRIDGE APPROACH SLAB AND ALL CONCRETE PANELS ON I-95 SOUTHBOUND FROM STA. 2360+84.14 TO THE BRANDYWINE RIVER BRIDGE APPROACH SLAB SHALL BE CLASS A CONCRETE AND SHALL REQUIRE THE USE OF NONFERROUS REINFORCEMENT FIBERS AT A RATE OF 1.5 POUNDS PER CUBIC YARD. CLASS A CONCRETE AND NONFERROUS FIBERS SHALL BE INCIDENTAL TO ITEM 501006 - PORTLAND CEMENT CONCRETE PAVEMENT, 12"

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY	CHECKED BY: BRT	
NEW CASTLE		

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-34

SECTION WRA

SHEET NO. 153

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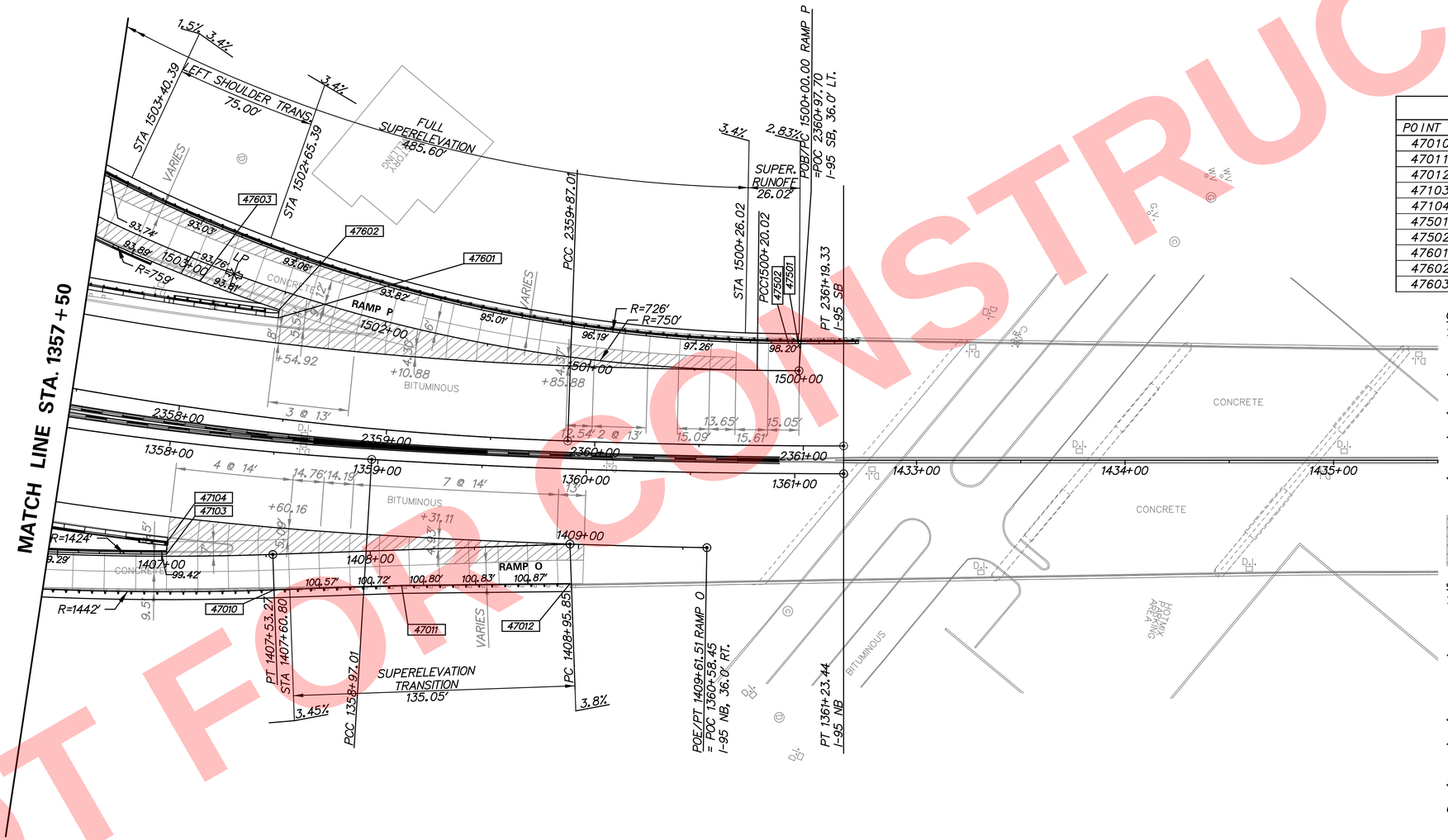


HP	HIGH POINT
LP	LOW POINT

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
47010	1407+53.27	17.00	638575.7213	617807.2261
47011	1408+14.44	17.00	638636.2917	617815.7378
47012	1408+95.18	18.96	638715.9743	617828.9151
47103	1407+02.31	-1.00	638527.9331	617781.4143
47104	1407+02.65	-6.97	638529.3067	617775.5961
47501	1500+00.45	13.00	638843.7454	617734.5599
47502	1500+05.14	13.00	638839.1518	617733.7188
47601	1502+49.62	-12.92	638600.3686	617679.1543
47602	1502+50.39	-9.00	638601.5343	617675.3280
47603	1502+90.32	-9.00	638566.4597	617655.2659

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH THE EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.

AREA NOT SUBJECT TO RIDE QUALITY TESTING PER SECTION 501.03.11.1 OF THE DELDOT STANDARD SPECIFICATIONS.

JOINT LAYOUT NOTES:

1. THE CONTRACTOR SHALL CONSTRUCT THE JOINTS ACCORDING TO THE JOINT LAYOUT NOTES, DELDOT STANDARD DETAILS, AND AS DIRECTED BY THE ENGINEER.
2. JOINT LAYOUT AS SHOWN ON THE PLANS FOR INFORMATION ONLY AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEVELOP A JOINT LAYOUT FOR REVIEW AND APPROVAL BY THE ENGINEER.
3. TYPICAL TRANSVERSE JOINT SPACING IS 15'.
4. THE MAXIMUM SLAB WIDTH IS 14' UNLESS OTHERWISE NOTED ON THE PLANS OR APPROVED BY THE ENGINEER.
5. THE MINIMUM SLAB WIDTH IS 4'.
6. THE MINIMUM TRANSVERSE JOINT SPACING IS 12'. THE MAXIMUM TRANSVERSE SPACING IS 17'. SPACING ON CURVES SHALL BE MEASURED ALONG THE LONGEST CHORD.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE THE NECESSARY ADJUSTMENTS TO THE JOINT LAYOUT SO THAT UTILITY AND DRAINAGE FEATURES WITHIN 5' OF JOINTS TO PASS THROUGH THE FEATURE OR BOXOUT SURROUNDING THE FEATURE.

NOT FOR CONSTRUCTION

GG-35

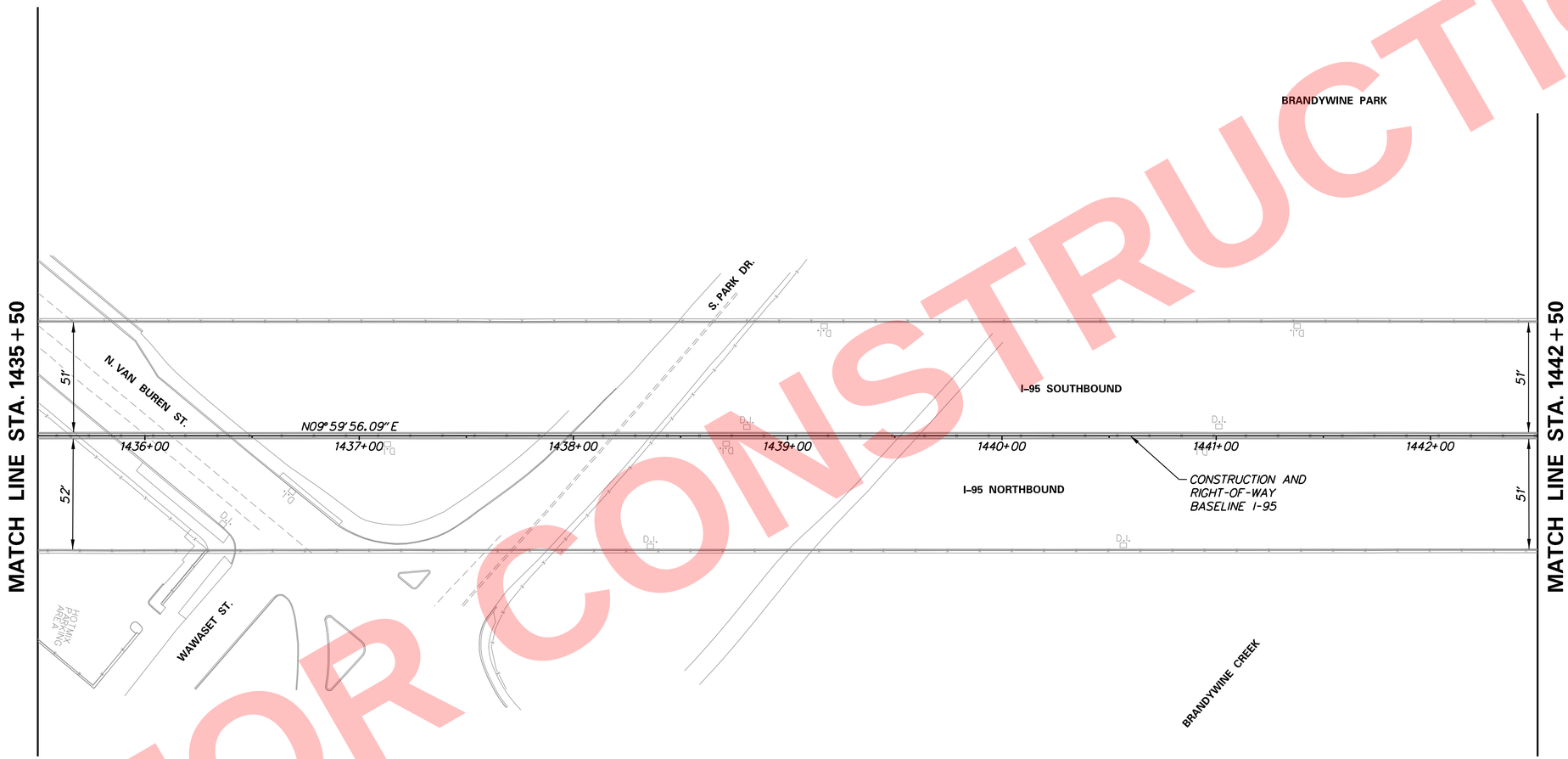
DELAWARE DEPARTMENT OF TRANSPORTATION

ADDENDUMS / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	GRADES AND GEOMETRICS	SHEET NO.
T201407404	DESIGNED BY: DHW		1-154
COUNTY			TOTAL SHTS.
NEW CASTLE	CHECKED BY: PAH		1-178



HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

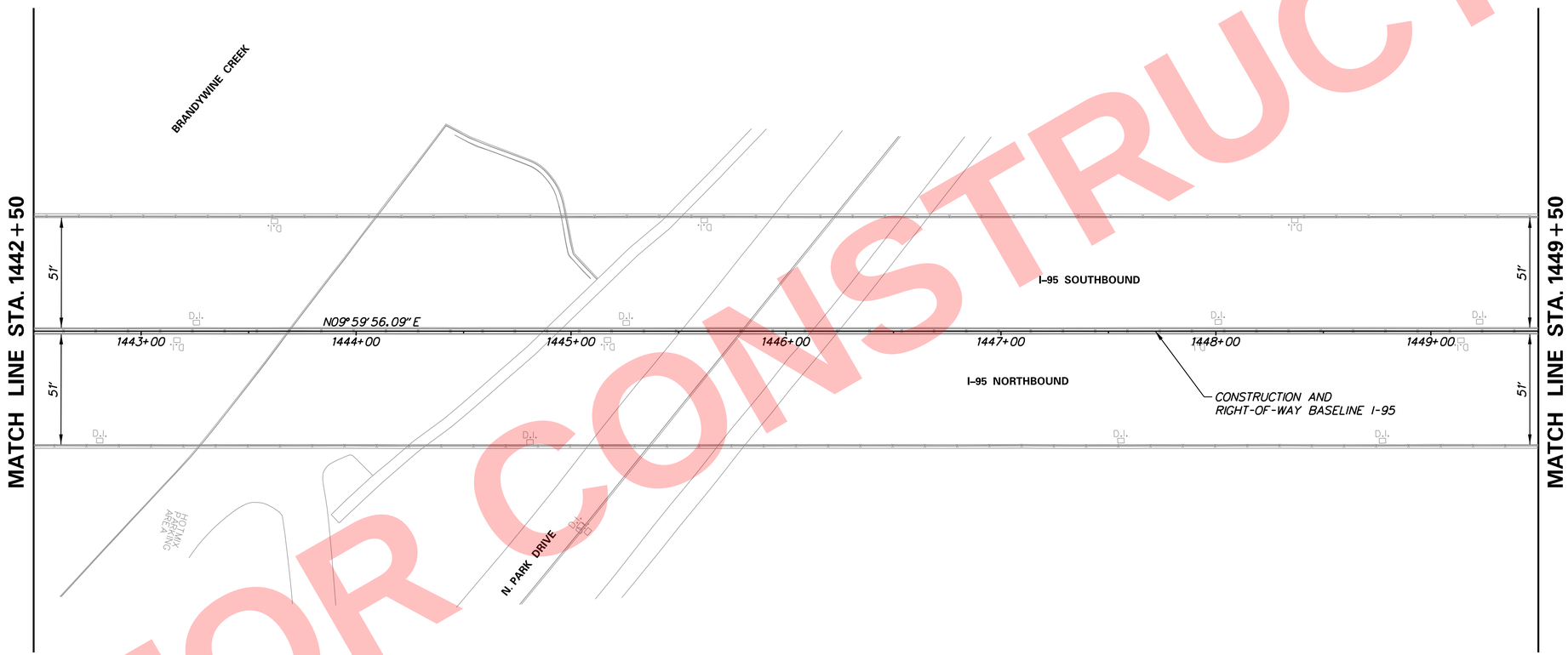
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-36
SECTION
WRA
SHEET NO.
155



HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

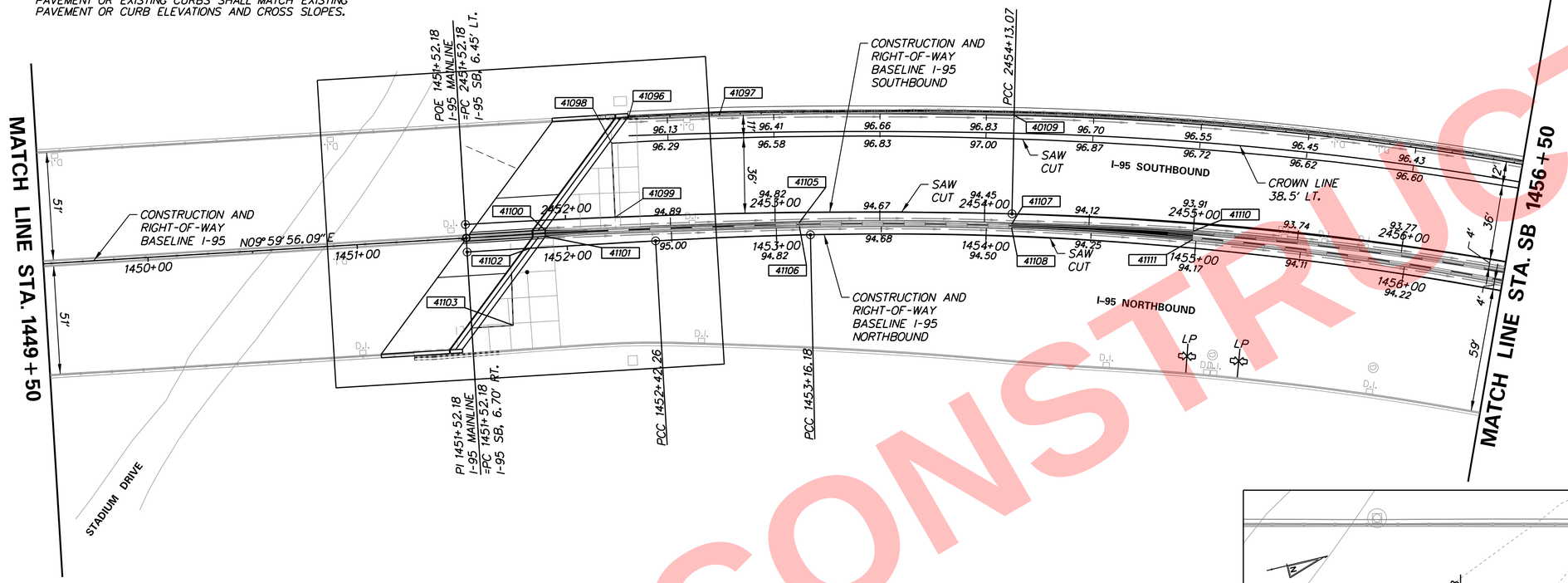
CONTRACT	T201407404
COUNTY	NEW CASTLE
BRIDGE NO.	
DESIGNED BY:	JAD
CHECKED BY:	BRT

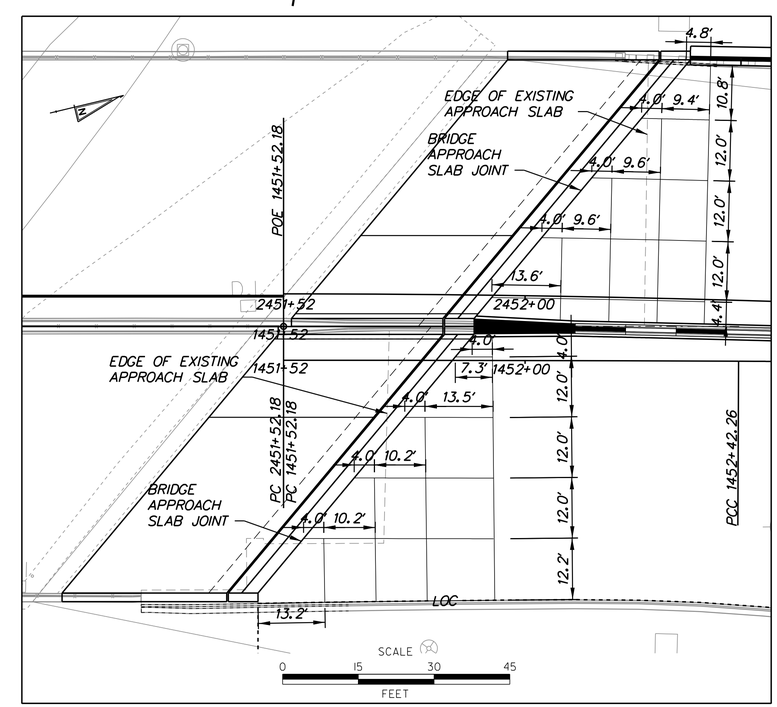
GRADES AND GEOMETRICS AND JOINT LAYOUT

	GG-37
SECTION	WRA
SHEET NO.	156

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.





HP	HIGH POINT
LP	LOW POINT

COORDINATE LIST

POINT NO.	STATION	OFFSET	NORTHING	EASTING
41096	2452+31.55	-46.36'	640802.2501	618084.0964
41097	2452+74.47	-47.00'	640845.0144	618092.4124
41098	2452+23.43	-35.25'	640791.9945	618093.3617
41099	2452+23.70	0.13'	640785.3200	618128.1068
41100	2451+89.97	4.66'	640751.3727	618126.1275
41101	1451+89.91	-5.17'	640750.8293	618129.2099
41102	1451+82.36	-0.01'	640742.4938	618132.9643
41103	1451+72.04	36.23'	640726.0083	618166.8384
41105	2453+11.55	4.72'	640870.1841	618151.0177
41106	1453+11.04	-4.00'	640869.7656	618152.9732
41107	2454+13.06	4.76'	640968.5792	618175.3187
41108	1454+12.06	-4.00'	640968.0574	618177.2492
41109	2454+13.07	-47.00'	640981.7859	618125.2716
41110	2455+00.00	4.00'	641051.9832	618198.9675
41111	1454+98.32	-4.00'	641050.6618	618202.8193

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-38

SECTION WRA

SHEET NO. 157

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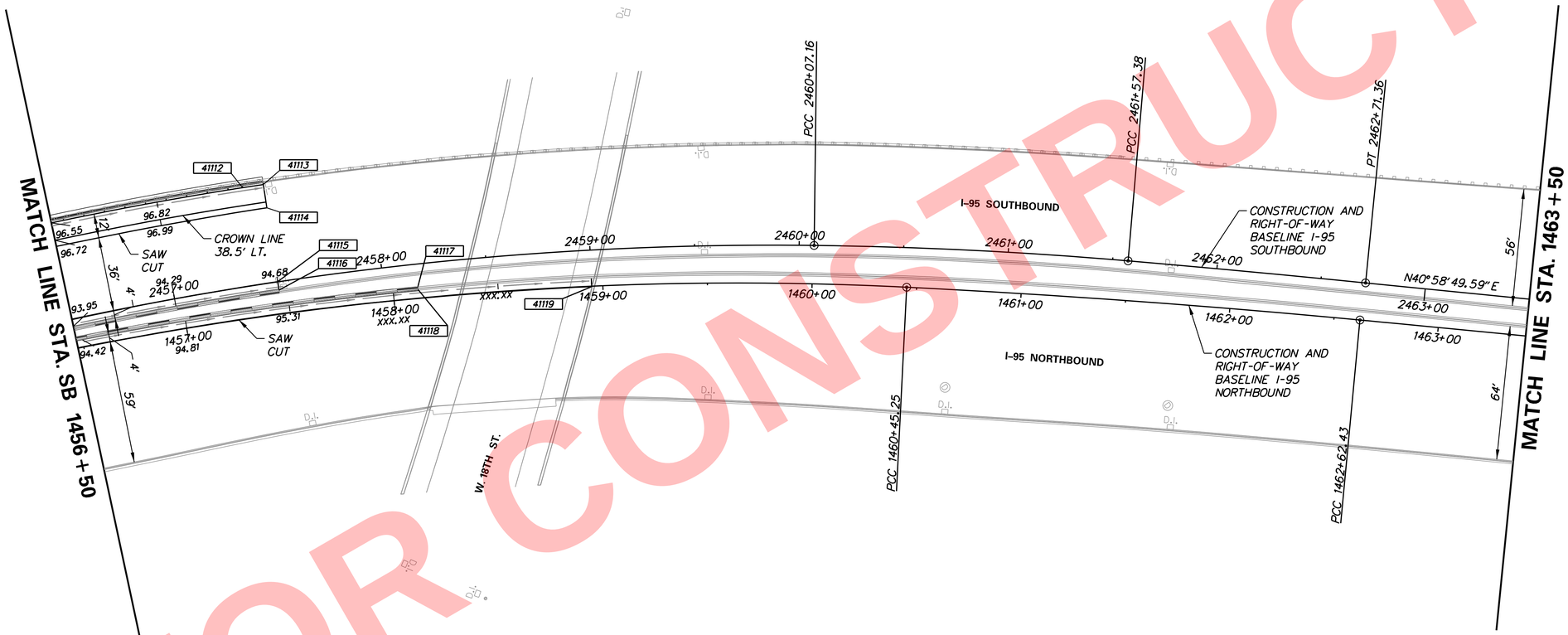
COORDINATE LIST				
POINT NO.	STATION	OFFSET	NORTHING	EASTING
41112	2457+40.28	-47.00'	641296.4597	618243.7205
41113	2457+50.00	-47.00'	641305.3977	618248.2078
41114	2457+50.00	-35.75'	641300.3199	618258.2397
41115	2457+49.98	-0.11'	641284.2198	618290.0363
41116	2457+50.00	4.00'	641282.3843	618293.7187
41117	1458+11.94	-5.50'	641337.4939	618330.7121
41118	1458+11.95	-4.00'	641336.7472	618332.0130
41119	1458+94.64	0.25'	641405.2413	618378.7005

GENERAL NOTES:

1. OFFSETS SHOWN IN THE COORDINATE LIST WITH A MINUS SIGN ARE TO THE LEFT OF THE CONSTRUCTION BASELINE.
2. UNLESS OTHERWISE NOTED, POINT GEOMETRY ADJACENT TO CURB AND GUTTER IS GIVEN TO THE EDGE OF PAVEMENT.
3. RADII ARE GIVEN TO THE EDGE OF PAVEMENT.
4. UNLESS OTHERWISE NOTED, EDGE OF PAVEMENT ELEVATIONS AT CURB RETURNS ARE GIVEN AT 10 FOOT INTERVALS.
5. PROPOSED CURB OR PAVEMENT THAT TIES INTO EXISTING PAVEMENT OR EXISTING CURBS SHALL MATCH EXISTING PAVEMENT OR CURB ELEVATIONS AND CROSS SLOPES.



HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

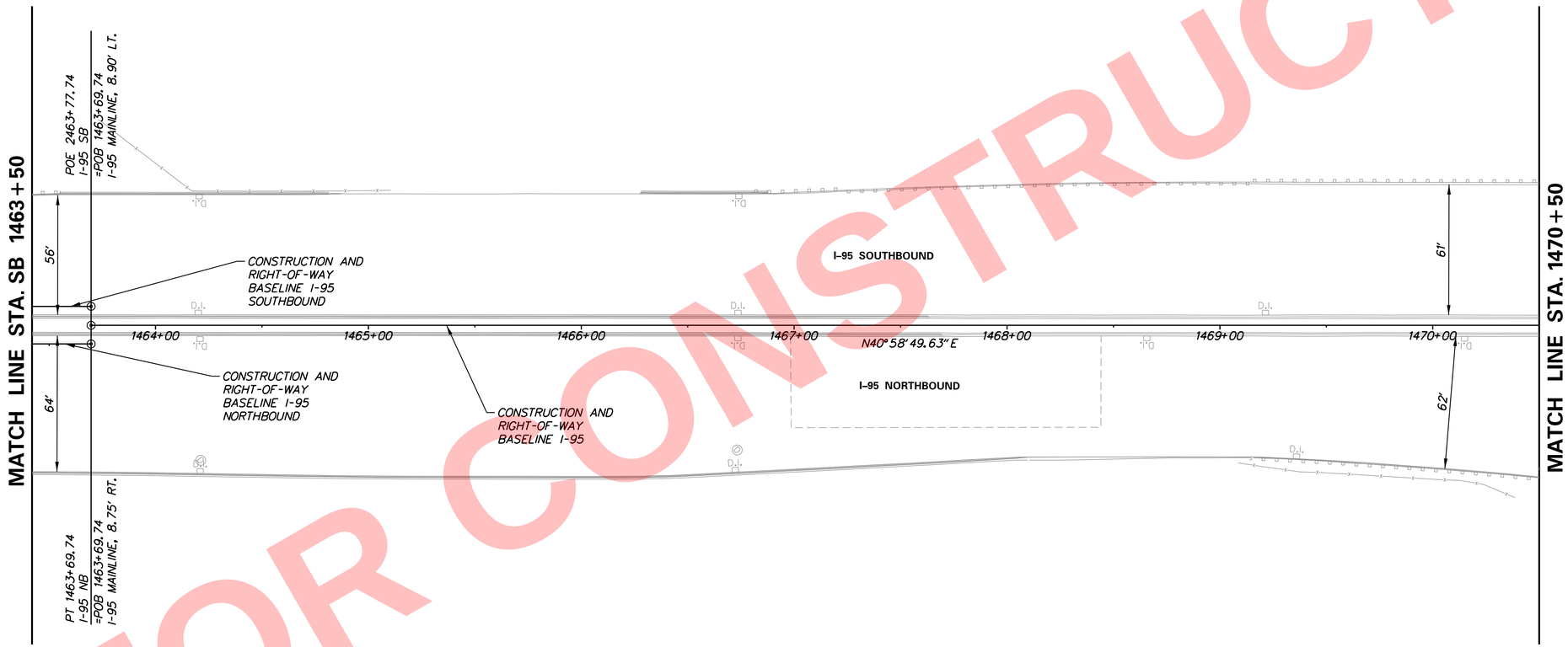
CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	CHECKED BY: BRT
NEW CASTLE	

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-39

SECTION WRA

SHEET NO. 158



HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

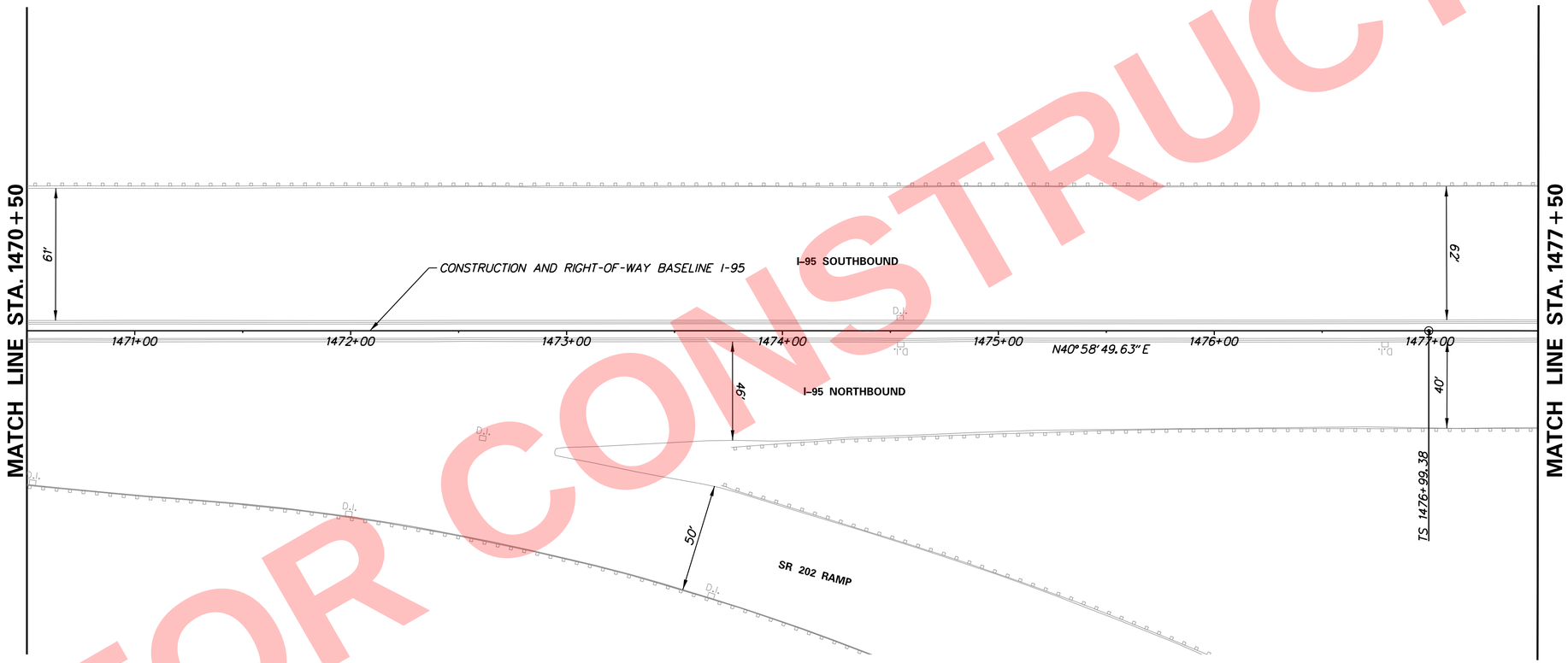
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-40
SECTION
WRA
SHEET NO.
159



HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

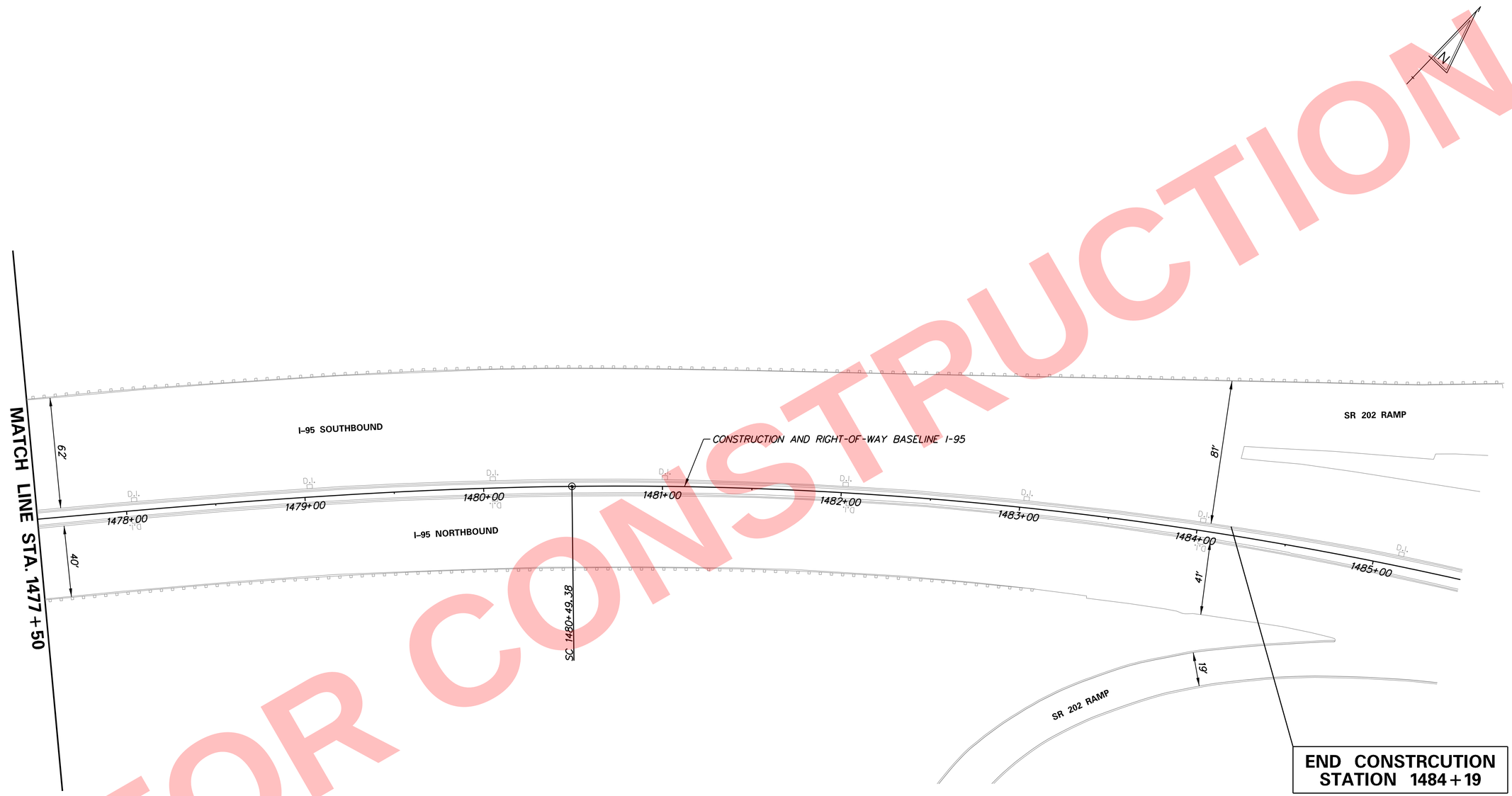
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	T201407404
COUNTY	NEW CASTLE
BRIDGE NO.	
DESIGNED BY: JAD	
CHECKED BY: BRT	

GRADES AND GEOMETRICS AND JOINT LAYOUT

GG-41	
SECTION	WRA
SHEET NO.	160



HP	HIGH POINT
LP	LOW POINT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

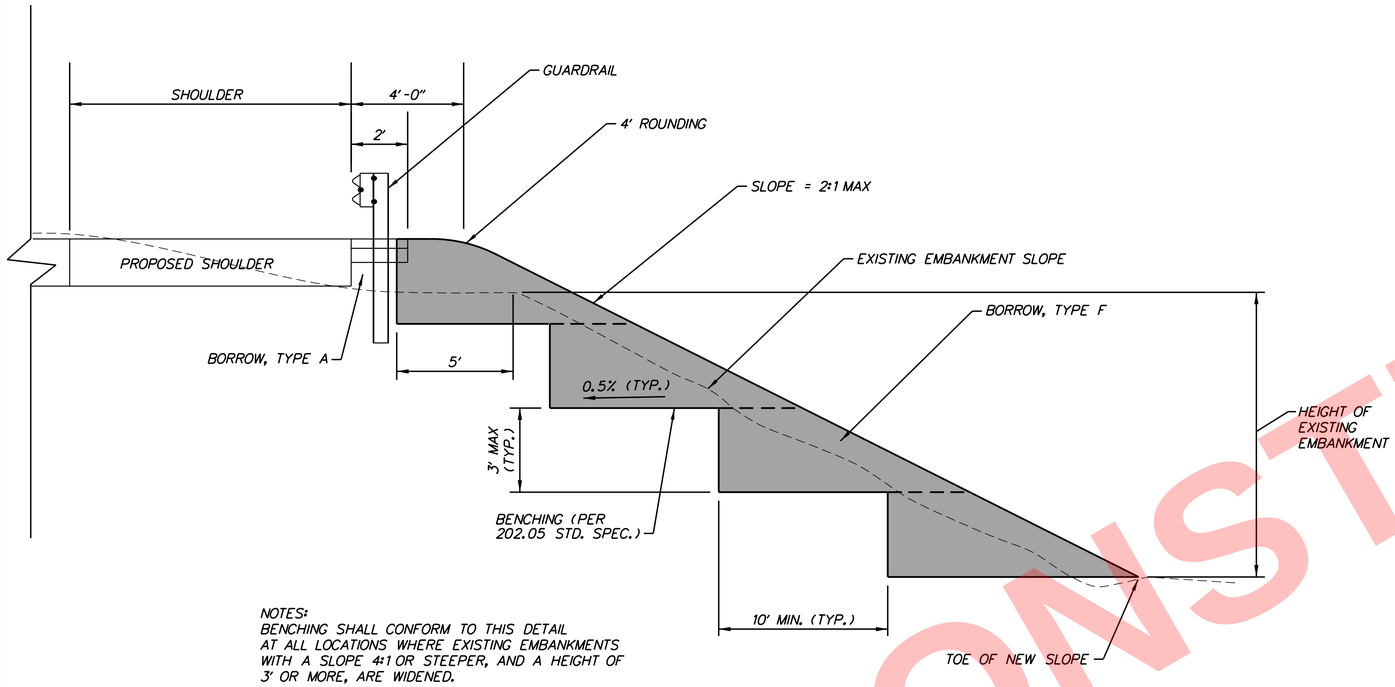
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	T201407404
COUNTY	NEW CASTLE
BRIDGE NO.	
DESIGNED BY: JAD	
CHECKED BY: BRT	

GRADES AND GEOMETRICS AND JOINT LAYOUT

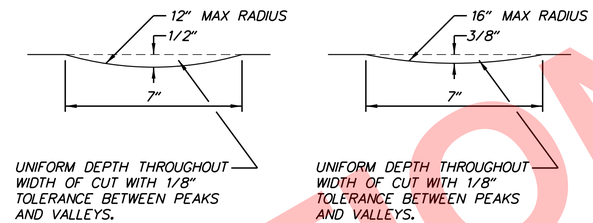
	GG-42
SECTION	WRA
SHEET NO.	161



NOTES:
BENCHING SHALL CONFORM TO THIS DETAIL AT ALL LOCATIONS WHERE EXISTING EMBANKMENTS WITH A SLOPE 4:1 OR STEEPER, AND A HEIGHT OF 3' OR MORE, ARE WIDENED.

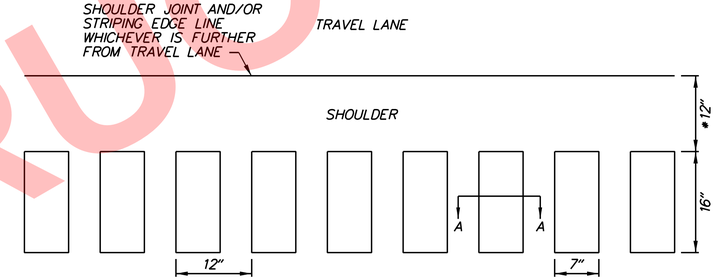
BENCHING DETAIL

NOT TO SCALE



SECTION A-A

RUMBLE STRIP SECTION

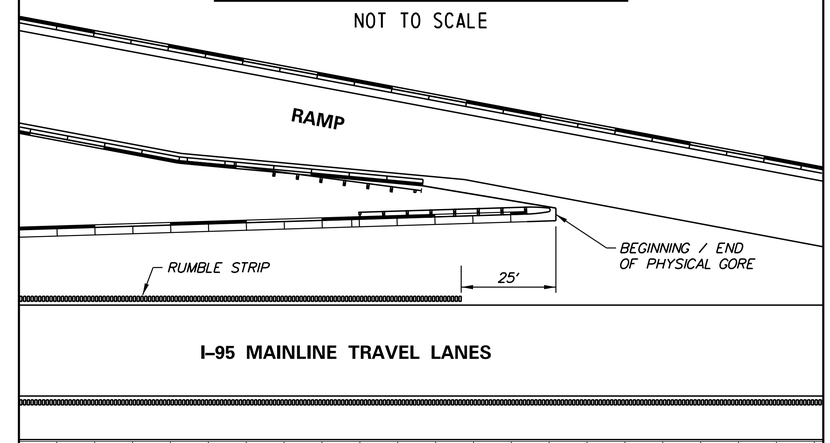


* WHERE SHOULDER WIDTH IS 6' OR LESS, OFFSET SHALL BE 6"

PLAN VIEW

EDGELINE RUMBLE STRIP DETAIL

NOT TO SCALE



TYPICAL RUMBLE STRIP LAYOUT AT GORES

NOT TO SCALE

NOT FOR CONSTRUCTION

ADDENDA / REVISIONS		NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CONSTRUCTION DETAILS EDGELINE RUMBLE STRIP AND BENCHIG DETAIL	DT-01
				COUNTY NEW CASTLE	DESIGNED BY: JAD		SECTION WRA
					CHECKED BY: BRT		SHEET NO. 162

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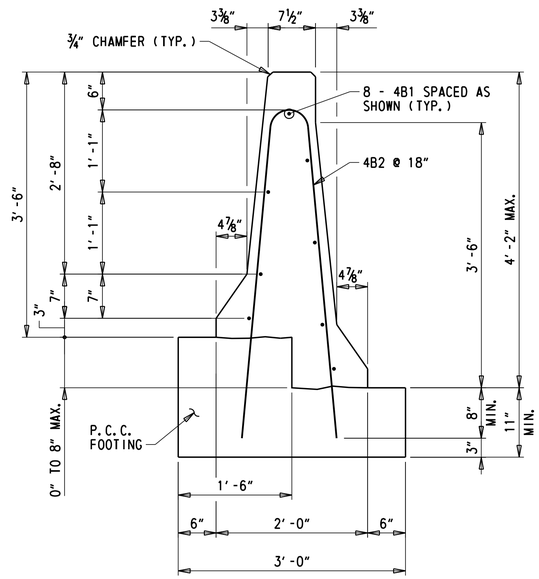
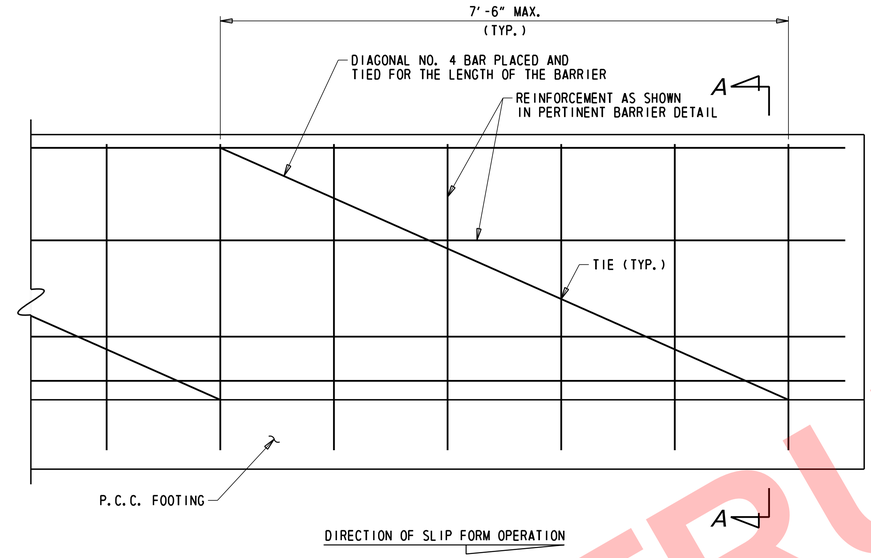
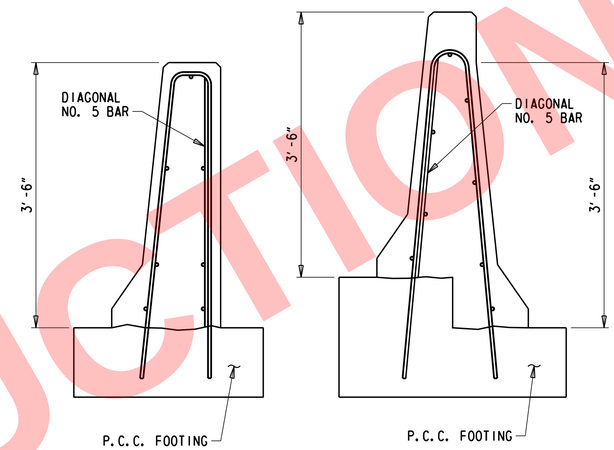


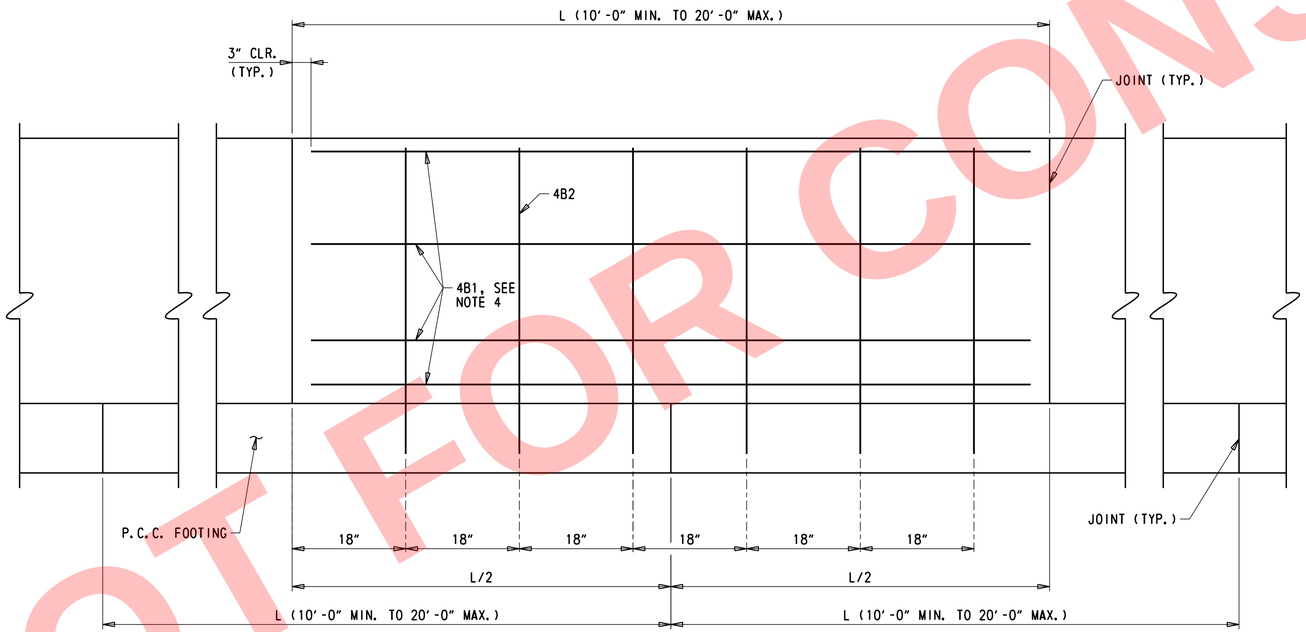
ITEM 723005 - P.C.C. SAFETY BARRIER, PERMANENT, DOUBLE FACE BIFURCATED



DIAGONAL BAR DETAIL FOR SLIP FORM CONSTRUCTION



SECTION A-A



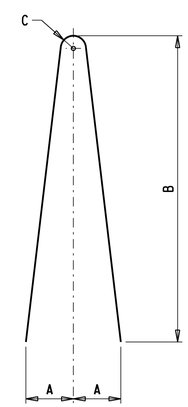
ELEVATION

TYPICAL CAST-IN-PLACE OR SLIP-FORM CONSTRUCTION

1" = 1'-0"

BAR LIST							
MARK	SIZE	NUMBER IN EACH SECTION	LENGTH	TYPE	A	B	C
4B1	4	7	*	STR.	-	-	-
••• 4B2	4	••	8'-10"	1	7½"	52"	2"

* THE LENGTH OF BAR 4B1 SHALL BE 6" SHORTER IN LENGTH THAN THE NOMINAL SIZE OF THE BARRIER IN WHICH IT IS USED. SEE NOTE 4.
•• SEE "BAR OFFSETS" CHART ON THIS SHEET FOR MORE INFORMATION.
••• DIMENSIONS SHOWN ARE FOR MAXIMUM BIFURCATED HEIGHT; DIMENSIONS IN BETWEEN VARY.



TYPE 1 BAR

BAR OFFSETS	
NOMINAL LENGTH OF BARRIER SECTION (L)	NO. REQ'D FOR EACH BARRIER SECTION
20'	13
18'	12
16'	10
14'	9
12'	8
10'	6

P.C.C. SAFETY BARRIER NOTES:

1. BARRIER SHALL BE IN CONFORMANCE WITH SECTION 723 AND AS NOTED IN THESE PLANS.
2. CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE 1½" MIN.
3. WHEN BARRIER IS CONSTRUCTED USING THE SLIP FORM METHOD, DIAGONAL NO. 4 BARS ARE REQUIRED. SEE DETAIL ON THIS SHEET.
4. FOR SLIP-FORM CONSTRUCTION, THE 4B1 BARS SHALL BE PLACED AS ONE CONTINUOUS PIECE WITH A MINIMUM LAP OF 12". A JOINT SHALL BE CUT IN THE BARRIER EVERY 10'-0" AT A MAXIMUM DEPTH OF ½".

NOT FOR CONSTRUCTION

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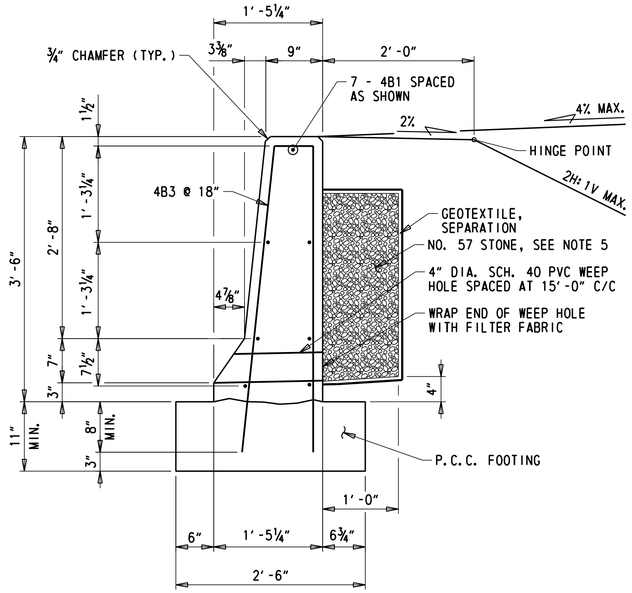
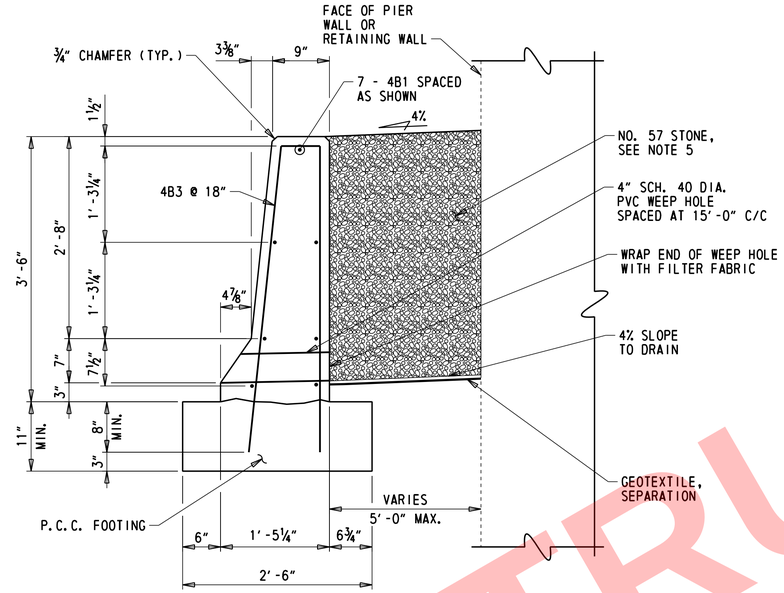
ADDENDA / REVISIONS	SCALE AS NOTED	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CONSTRUCTION DETAILS P.C.C. SAFETY BARRIER DOUBLE FACE BIFURCATED	DT-02 SECTION WRA
			COUNTY NEW CASTLE	DESIGNED BY: DAN		SHEET NO. 163
				CHECKED BY: WAG		

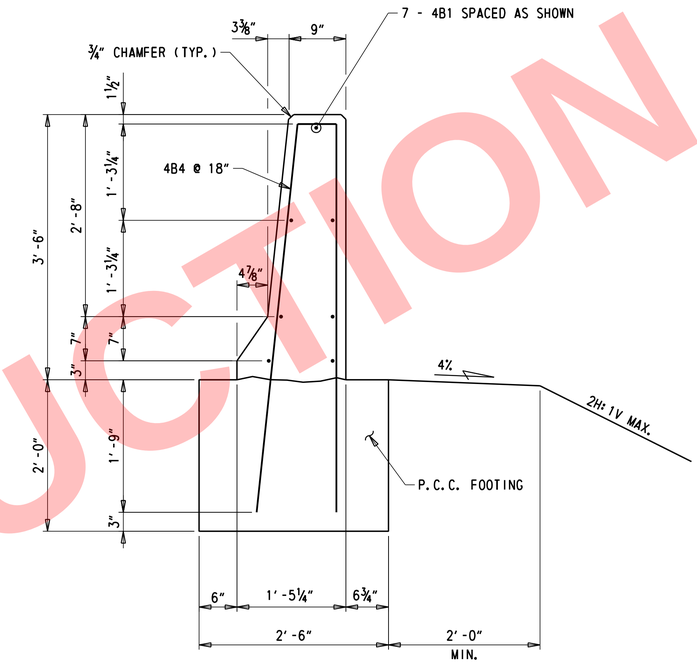


TYPICAL BARRIER APPLICATION

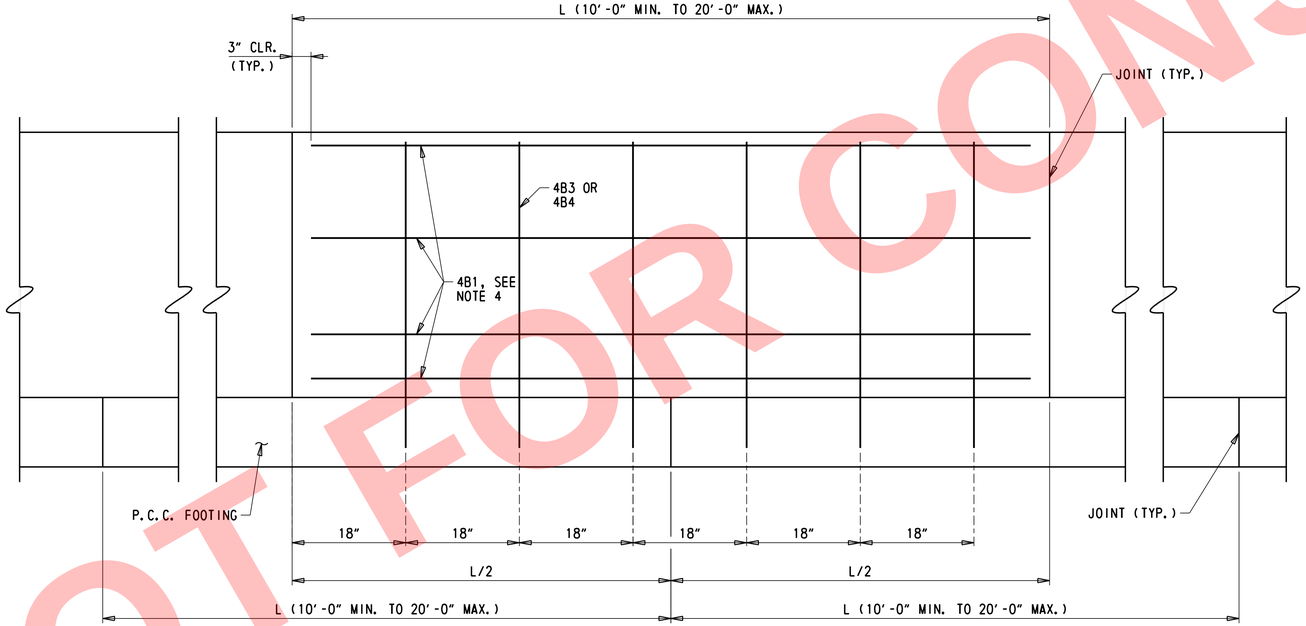


APPLICATION OF BARRIER IN FRONT OF PIER WALL OR RETAINING WALL

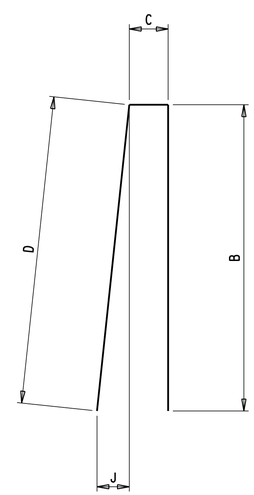
ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE 42" TYPE 1



ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE 42" TYPE 2



ELEVATION



TYPE 2 BAR

TYPICAL CAST-IN-PLACE OR SLIP-FORM CONSTRUCTION

1" = 1'-0"

BAR LIST								
MARK	SIZE	NUMBER IN EACH SECTION	LENGTH	TYPE	B	C	D	J
4B1	4	7	*	STR.	-	-	-	-
4B3	4	**	8'-7¼"	2	48½"	6"	48¾"	5"
4B4	4	**	10'-9½"	2	61½"	6"	62"	6½"

* THE LENGTH OF BAR 4B1 SHALL BE 6" SHORTER IN LENGTH THAN THE NOMINAL SIZE OF THE BARRIER IN WHICH IT IS USED. SEE NOTE 4.
** SEE "BAR OFFSETS" CHART ON DT-02 FOR MORE INFORMATION.

P.C.C. SAFETY BARRIER NOTES:

1. BARRIER SHALL BE IN CONFORMANCE WITH SECTION 723 AND AS NOTED IN THESE PLANS.
2. CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE 1½" MIN.
3. WHEN BARRIER IS CONSTRUCTED USING THE SLIP FORM METHOD, DIAGONAL NO. 4 BARS ARE REQUIRED. SEE DETAIL ON DWG. DT-02.
4. FOR SLIP FORM CONSTRUCTION, THE 4B1 BARS SHALL BE PLACED AS ONE CONTINUOUS PIECE WITH A MINIMUM LAP OF 12". A JOINT SHALL BE CUT IN THE BARRIER EVERY 10'-0" AT A MAXIMUM DEPTH OF ½"
5. PAYMENT FOR NO. 57 STONE, GEOTEXTILE, WEEP HOLES, AND FILTER FABRIC WILL BE INCIDENTAL TO THE PERTINENT BARRIER ITEM.

NOT FOR CONSTRUCTION

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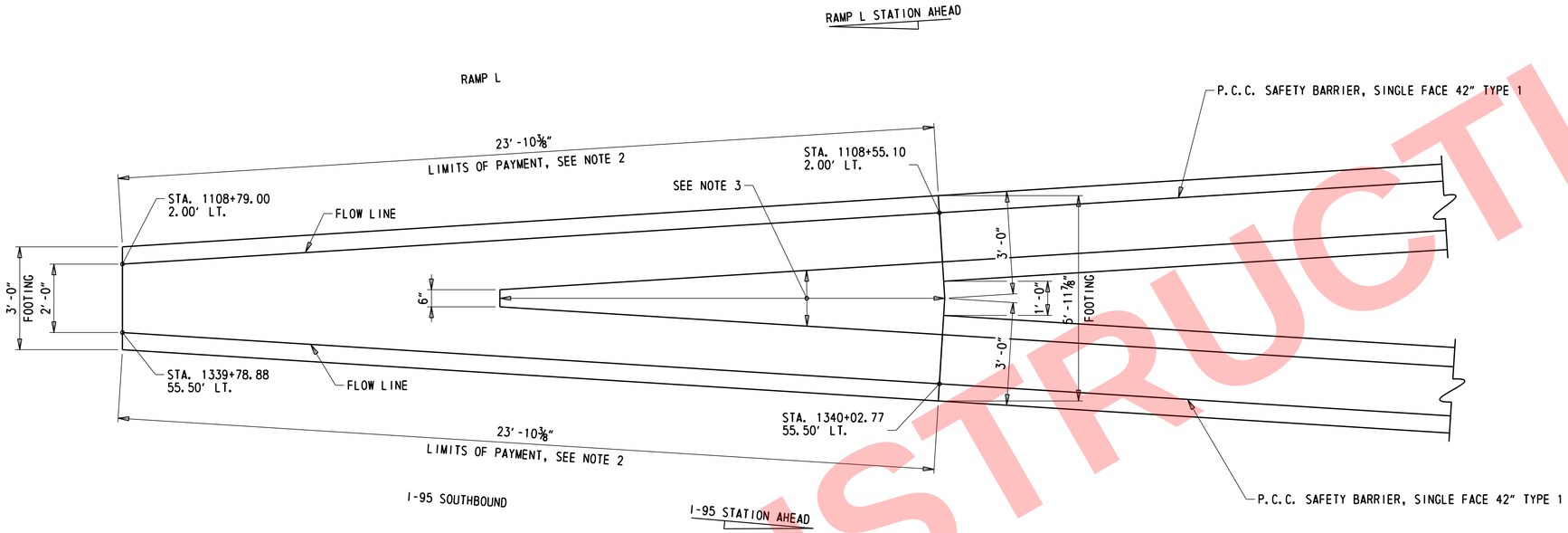
ADDENDA / REVISIONS	SCALE AS NOTED	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CONSTRUCTION DETAILS P.C.C. SAFETY BARRIER SINGLE FACE 42"	DT-03
			COUNTY NEW CASTLE	DESIGNED BY: DAN		SECTION WRA
				CHECKED BY: WAG		SHEET NO. 164



MEDIAN BARRIER AT RAMP L AND I-95 SOUTHBOUND MERGE - PLAN

½" = 1'-0"

NOTES:

1. FOR CONCRETE BARRIER NOTES, SEE DWG. DT-03.
2. PAYMENT FOR MEDIAN BARRIER MERGE WILL BE MADE UNDER ITEM 723003 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE, 42", FOR THE TOTAL LINEAR FEET OF EACH FACE AS SHOWN. COST OF THE MERGE WILL BE INCIDENTAL TO THE ITEM.
3. CONTRACTOR HAS THE OPTION OF FORMING VOID AREA BETWEEN BARRIERS, OR CASTING AS SOLID CONCRETE. NO ADDITIONAL COMPENSATION WILL BE MADE FOR WHICHEVER OPTION IS CHOSEN.

NOT FOR CONSTRUCTION

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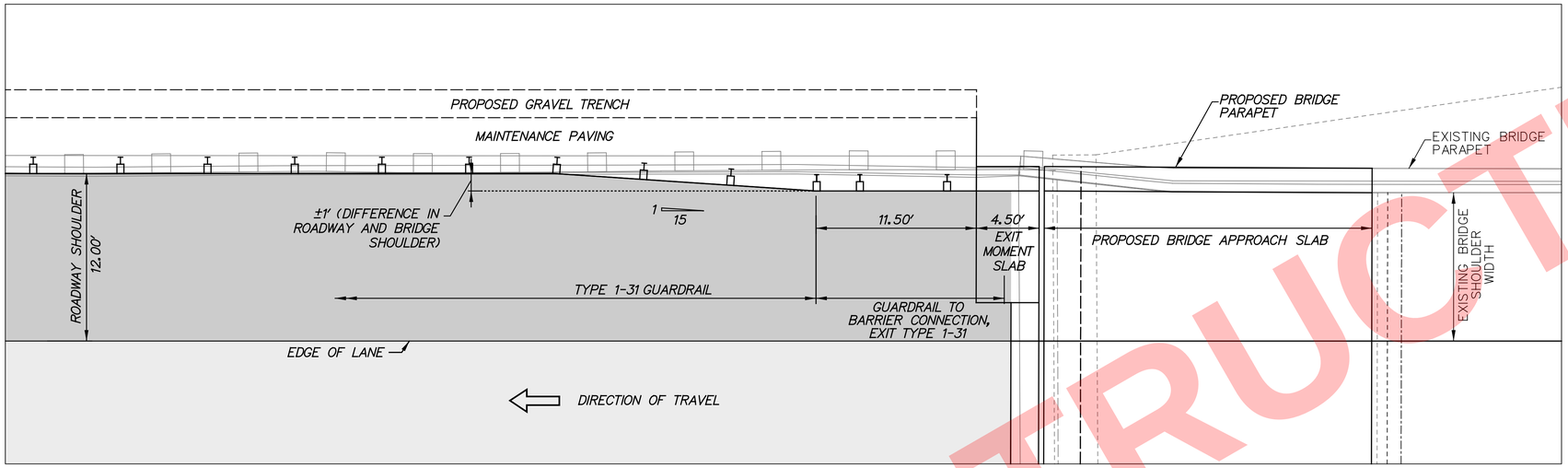
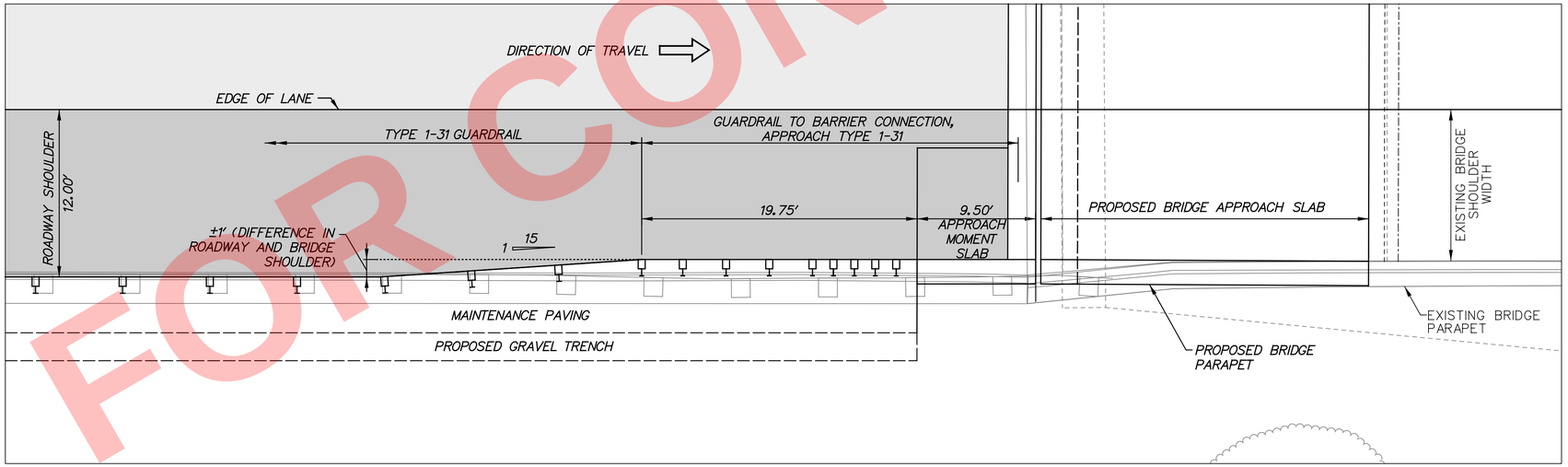
ADDENDA / REVISIONS		SCALE AS NOTED	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CONSTRUCTION DETAILS P.C.C. SAFETY BARRIER RAMP 'L' TERMINATION	DT-04
				COUNTY NEW CASTLE	DESIGNED BY: DAN		SECTION WRA
					CHECKED BY: WAG		SHEET NO. 165



EXIT GUARDRAIL DETAIL

STA 1211+31.65 RT
STA 1216+26.67 LT
STA 1221+59.02 RT
STA 1225+82.51 LT
STA 1228+73.99 RT



APPROACH GUARDRAIL DETAIL

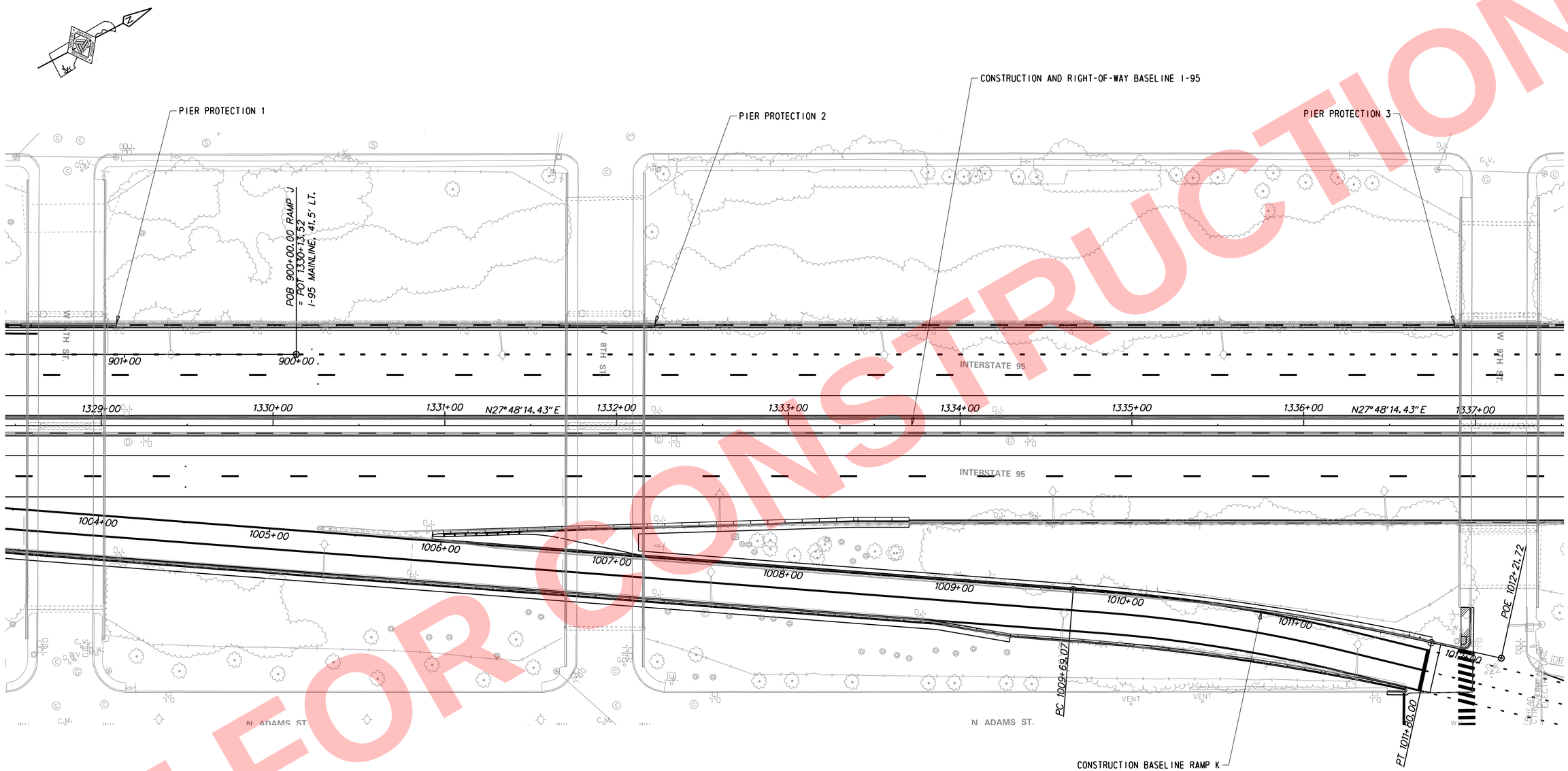
STA 1204+62.52 RT
STA 1210+56.34 LT
STA 1261+14.17 RT
STA 1221+62.84 LT
STA 1225+80.05 RT
STA 1228+68.20 LT

NOT FOR CONSTRUCTION

DT-05

DELAWARE DEPARTMENT OF TRANSPORTATION	ADDENDUMS / REVISIONS	SCALE 0 5 10 15 FEET	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404 / COUNTY NEW CASTLE	BRIDGE NO. / DESIGNED BY: DHW / CHECKED BY: PAH	GUARDRAIL DETAIL

SHEET NO. 1-166
TOTAL SHTS. 1-178



NOT FOR CONSTRUCTION

NOTES:

1. FOR PIER PROTECTION DETAILS, SEE DWGS. DT-08 AND DT-09.

LAYOUT OF PIER PROTECTION

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ADDENDA / REVISIONS	

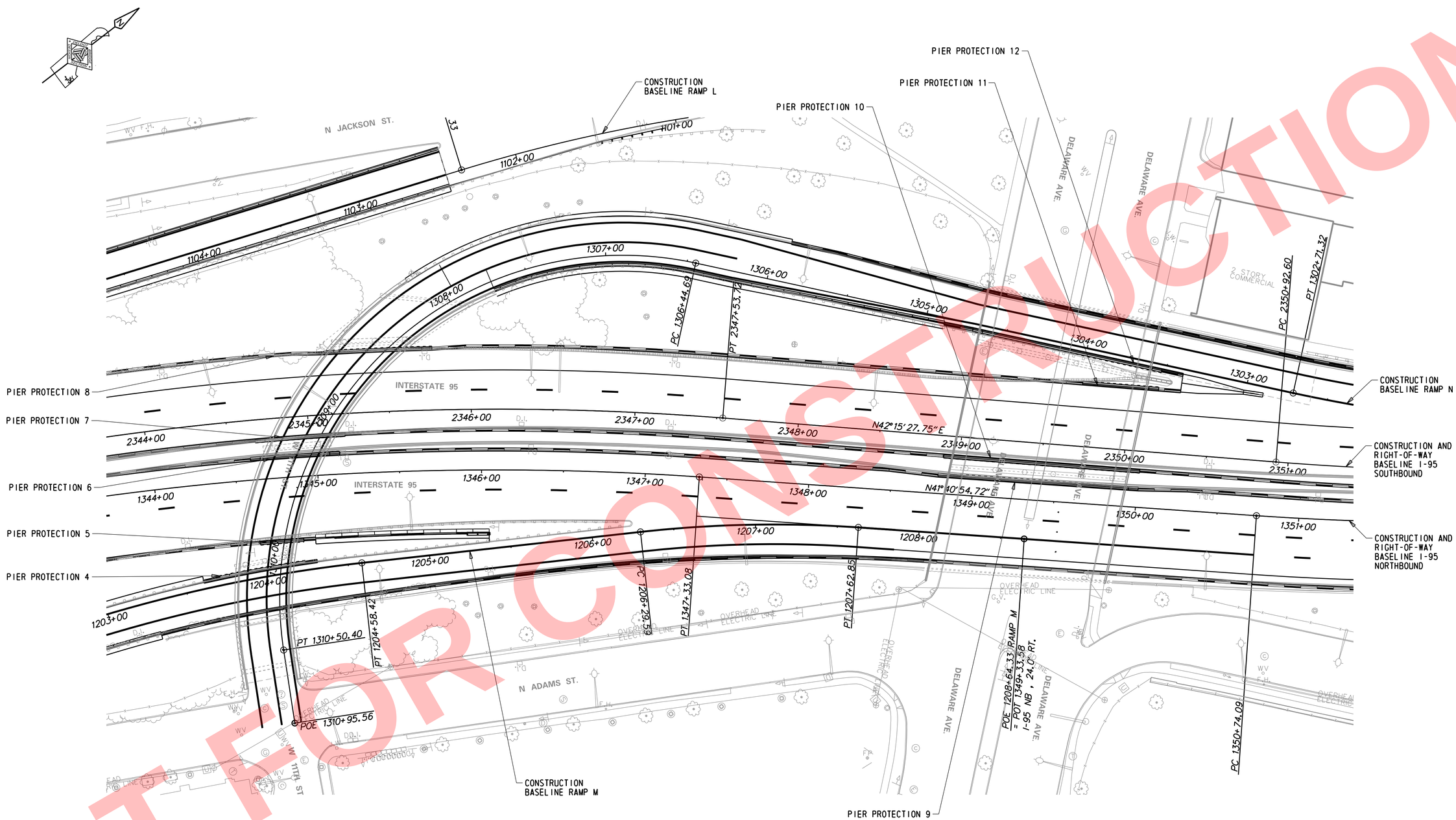
SCALE
0 30 60 90
FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: DAN	
COUNTY		
NEW CASTLE	CHECKED BY: WAG	

CONSTRUCTION DETAILS LAYOUT OF PIER PROTECTION – 1

DT–06
SECTION
WRA
SHEET NO.
167



LAYOUT OF PIER PROTECTION

NOTES:

1. FOR PIER PROTECTION DETAILS, SEE DWGS. DT-08 AND DT-09.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

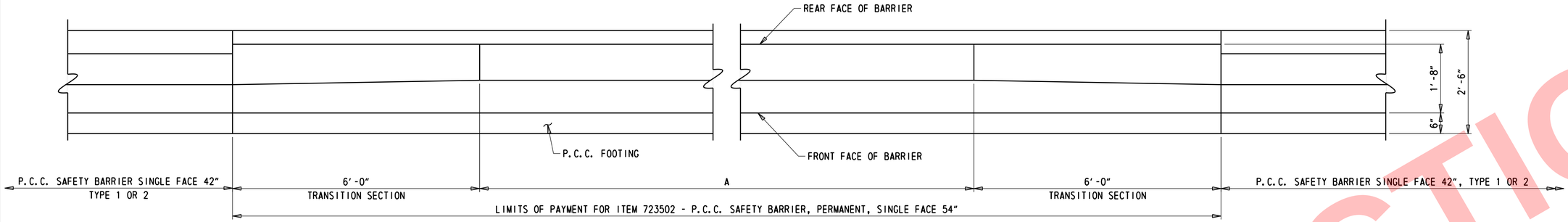
SCALE 0 30 60 90 FEET

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407404	DESIGNED BY: DAN	
COUNTY		
NEW CASTLE	CHECKED BY: WAG	

CONSTRUCTION DETAILS LAYOUT OF PIER PROTECTION – 2

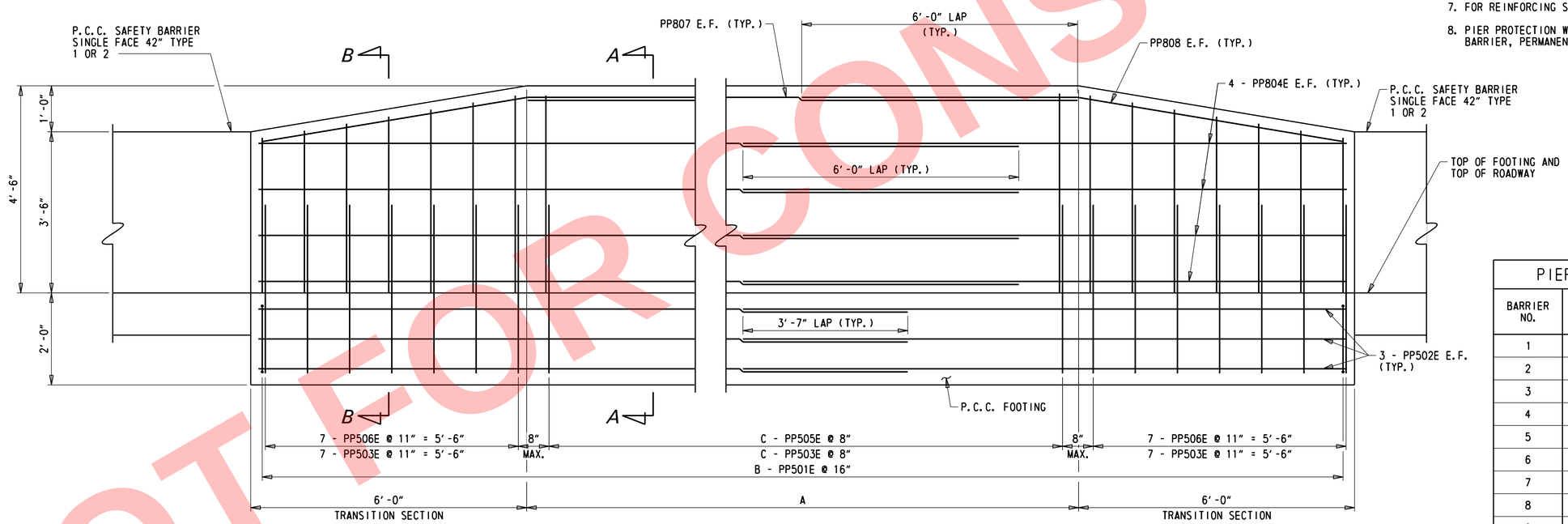
DT–07
SECTION
WRA
SHEET NO.
168



PLAN

NOTES:

1. PIER PROTECTION SHALL BE IN CONFORMANCE WITH SECTION 723 UNLESS NOTED OTHERWISE.
2. ALL CONCRETE SHALL BE CLASS D CONCRETE MEETING THE REQUIREMENTS OF SECTION 723.02.
2. ALL CHAMFERS FOR CONCRETE SHALL BE ¾".
3. ALL REINFORCING STEEL SHALL BE AASHTO M 31, GRADE 60 EPOXY COATED.
4. SPACING OF TRANSVERSE CONSTRUCTION JOINTS FOR CRACK CONTROL SHALL BE BETWEEN 10'-0" AND 20'-0". TRANSVERSE CONSTRUCTION JOINTS IN FOOTING SHALL BE STAGGERED AT MID-POINT BETWEEN BARRIER JOINTS.
5. BARRIER IS NOT DETAILED TO ACCOMODATE GUARDRAIL CONNECTION. IF A GUARDRAIL CONNECTION IS REQUIRED A TYPE 1 OR 2 BARRIER SECTION SHALL BE CONSTRUCTED ADJADENT TO THE PIER PROTECTION SYSTEM TO ACCOMODATE THE GUARDRAIL CONNECTION.
6. FOR SECTIONS A-A AND B-B, SEE DWG. DT-09.
7. FOR REINFORCING STEEL SCHEDULE, SEE DWGS. DT-09 AND DT-10.
8. PIER PROTECTION WILL BE PAID FOR UNDER ITEM 723502 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE 54".



ELEVATION

PIER PROTECTION

¾" = 1'-0"

PIER PROTECTION TYPE 1 BARRIER DIMENSIONS						
BARRIER NO.	ROADWAY	BEGIN STA.	END STA.	A	B	C
1	I-95 SB	1328+53.25	1329+08.75	43'-6"	43	66
2	I-95 SB	1331+66.73	1332+22.23	43'-6"	43	66
3	I-95 SB	1336+87.82	1337+42.31	42'-6"	42	64
4	RAMP M	1203+71.64	1204+24.39	41'-0"	41	62
5	I-95 NB	1344+61.74	1344+88.81	14'-6"	21	22
6	I-95 NB	1344+59.80	1345+13.94	42'-6"	42	64
7	I-95 SB	2344+66.74	2345+22.13	43'-0"	42	65
8	I-95 SB	2345+12.23	2345+76.83	54'-0"	51	81
9	I-95 NB	1348+78.38	1350+00.88	110'-6"	93	166
10	I-95 SB	2348+90.06	2350+10.06	108'-0"	91	162
11	I-95 SB	2349+71.13	2350+17.63	34'-6"	36	52
12	RAMP N	1303+52.67	1304+70.67	106'-0"	90	159

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

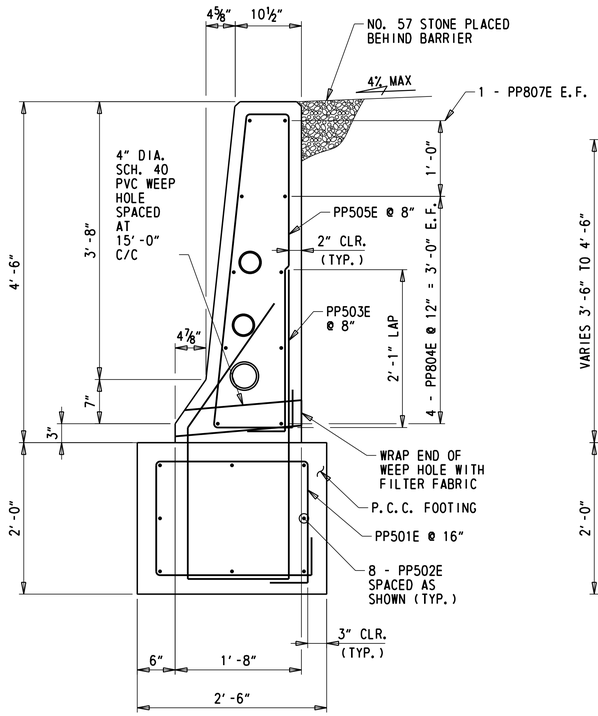
SCALE AS NOTED

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

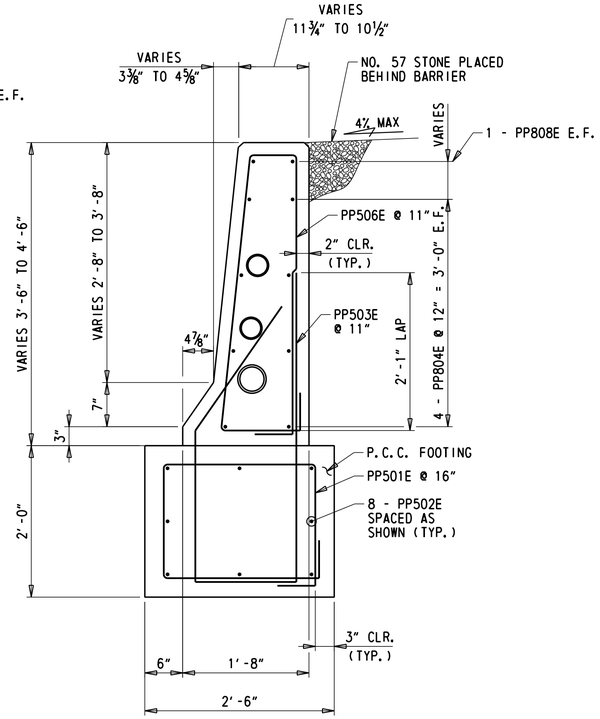
CONTRACT: T201407404
COUNTY: NEW CASTLE
BRIDGE NO.
DESIGNED BY: DAN
CHECKED BY: WAG

CONSTRUCTION DETAILS PIER PROTECTION PLAN AND ELEVATION

DT-08
SECTION: WRA
SHEET NO. 169



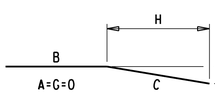
SECTION A-A



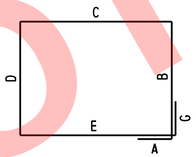
SECTION B-B

NOTES:

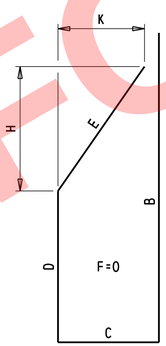
1. UNLESS NOTED OTHERWISE, CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE 2" MIN. EXCEPT IN FOOTING WHERE IT SHALL BE 3" MIN.
2. FOR LOCATION OF SECTIONS A-A AND B-B, SEE DT-08.
3. FOR REINFORCING STEEL SCHEDULE FOR PIER PROTECTION 5 THROUGH 12, SEE DWG. DT-10.
4. COST OF CONDUITS, PVC WEEP HOLE, AND FILTER FABRIC SHALL BE INCIDENTAL TO ITEM 723502 - P.C.C. SAFETY BARRIER, PERMANENT, SINGLE FACE 54".
5. PAYMENT FOR NO. 57 STONE WILL BE MADE UNDER ITEM 302005 - DELAWARE NO. 57 STONE.
6. FOR ADDITIONAL NOTES, SEE DWG. DT-08.



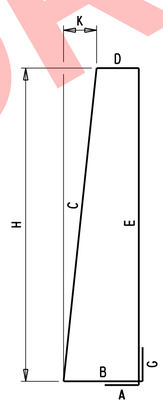
TYPE DE27



TYPE T2



TYPE DE16



TYPE SP04

PIER PROTECTION - REINFORCEMENT

1" = 1'-0"

BAR LIST - PIER PROTECTION 1												
	QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
	43	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
	8	5	55'-2"	PP502E	STR.	-	-	-	-	-	-	-	-
	80	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
	8	8	55'-2"	PP804E	STR.	-	-	-	-	-	-	-	-
	66	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
*	14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
	2	8	43'-6"	PP807E	STR.	-	-	-	-	-	-	-	-
	4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

BAR LIST - PIER PROTECTION 2												
	QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
	43	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
	8	5	55'-2"	PP502E	STR.	-	-	-	-	-	-	-	-
	80	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
	8	8	55'-2"	PP804E	STR.	-	-	-	-	-	-	-	-
	66	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
*	14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
	2	8	43'-6"	PP807E	STR.	-	-	-	-	-	-	-	-
	4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

BAR LIST - PIER PROTECTION 3												
	QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
	42	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
	8	5	54'-2"	PP502E	STR.	-	-	-	-	-	-	-	-
	78	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
	8	8	54'-2"	PP804E	STR.	-	-	-	-	-	-	-	-
	64	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
*	14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
	2	8	42'-6"	PP807E	STR.	-	-	-	-	-	-	-	-
	4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

BAR LIST - PIER PROTECTION 4												
	QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
	41	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
	8	5	52'-8"	PP502E	STR.	-	-	-	-	-	-	-	-
	76	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
	8	8	52'-8"	PP804E	STR.	-	-	-	-	-	-	-	-
	62	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
*	14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
	2	8	41'-0"	PP807E	STR.	-	-	-	-	-	-	-	-
	4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

* DIMENSIONS SHOWN ARE THE MINIMUM. FABRICATE 2 SERIES OF 7 BARS THAT VARY UP TO THE DIMSNIONS OF THE PP505E BAR.

REINFORCING NOTES:

1. ALL DIMENSIONS ARE OUT-TO-OUT.
2. UNLESS OTHERWISE NOTED, DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR
3. FOR RECOMMENDED DIAMETER "D", OF BENDS, HOOKS, ETC., REFER TO 'CRSI' OR 'ACI' TABLES WHERE APPLICABLE AND REQUIRED.
4. ANY MARK NUMBER WITH SUFFIX 'E' DENOTES EPOXY COATED REINFORCING STEEL.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

SCALE AS NOTED

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DAN
COUNTY	CHECKED BY: WAG
NEW CASTLE	

CONSTRUCTION DETAILS PIER PROTECTION SECTIONS & REINFORCEMENT

DT-09

SECTION WRA

SHEET NO. 170

BAR LIST - PIER PROTECTION 5

QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
21	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
8	5	26'-2"	PP502E	STR.	-	-	-	-	-	-	-	-
36	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
8	8	26'-2"	PP804E	STR.	-	-	-	-	-	-	-	-
22	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
• 14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
2	8	14'-6"	PP807E	STR.	-	-	-	-	-	-	-	-
4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

BAR LIST - PIER PROTECTION 6

QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
42	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
8	5	54'-2"	PP502E	STR.	-	-	-	-	-	-	-	-
78	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
8	8	54'-2"	PP804E	STR.	-	-	-	-	-	-	-	-
64	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
• 14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
2	8	42'-6"	PP807E	STR.	-	-	-	-	-	-	-	-
4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

BAR LIST - PIER PROTECTION 7

QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
42	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
8	5	54'-8"	PP502E	STR.	-	-	-	-	-	-	-	-
79	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
8	8	54'-8"	PP804E	STR.	-	-	-	-	-	-	-	-
65	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
• 14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
2	8	43'-0"	PP807E	STR.	-	-	-	-	-	-	-	-
4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

BAR LIST - PIER PROTECTION 8

QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
51	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
16	5	34'-8½"	PP502E	STR.	-	-	-	-	-	-	-	-
95	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
16	8	35'-10"	PP804E	STR.	-	-	-	-	-	-	-	-
81	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
• 14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
2	8	54'-0"	PP807E	STR.	-	-	-	-	-	-	-	-
4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

• DIMENSIONS SHOWN ARE THE MINIMUM. FABRICATE 2 SERIES OF 7 BARS THAT VARY UP TO THE DIMENSIONS OF THE PP505E BAR.

BAR LIST - PIER PROTECTION 9

QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
93	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
24	5	43'-1¼"	PP502E	STR.	-	-	-	-	-	-	-	-
180	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
24	8	44'-9"	PP804E	STR.	-	-	-	-	-	-	-	-
166	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
• 14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
4	8	58'-3"	PP807E	STR.	-	-	-	-	-	-	-	-
4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

BAR LIST - PIER PROTECTION 10

QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
91	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
24	5	42'-3¼"	PP502E	STR.	-	-	-	-	-	-	-	-
176	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
24	8	43'-11"	PP804E	STR.	-	-	-	-	-	-	-	-
162	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
• 14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
4	8	57'-0"	PP807E	STR.	-	-	-	-	-	-	-	-
4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

BAR LIST - PIER PROTECTION 11

QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
36	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
8	5	46'-2"	PP502E	STR.	-	-	-	-	-	-	-	-
66	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
8	8	46'-2"	PP804E	STR.	-	-	-	-	-	-	-	-
52	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
• 14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
2	8	34'-6"	PP807E	STR.	-	-	-	-	-	-	-	-
4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

BAR LIST - PIER PROTECTION 12

QTY.	SIZE	LENGTH	MARK	TYPE	A / G	B	C	D	E	F	H	K
90	5	8'-0"	PP501E	T2	6"	1'-6"	2'-0"	1'-6"	2'-0"	-	-	-
24	5	41'-7½"	PP502E	STR.	-	-	-	-	-	-	-	-
173	5	9'-3¼"	PP503E	DE16	-	4'-0"	1'-4"	1'-11¼"	2'-0"	-	1'-7¾"	1'-1¾"
24	8	43'-3"	PP804E	STR.	-	-	-	-	-	-	-	-
159	5	10'-11"	PP505E	SP04	6"	1'-0"	4'-2¼"	6¾"	4'-2"	-	4'-2"	5¼"
• 14	5	9'-0¼"	PP506E	SP04	6"	1'-0"	3'-2¼"	8"	3'-2"	-	3'-2"	4"
4	8	56'-0"	PP807E	STR.	-	-	-	-	-	-	-	-
4	8	11'-10"	PP808E	DE27	-	6'-0"	5'-10"	-	-	-	5'-9"	11½"

• DIMENSIONS SHOWN ARE THE MINIMUM. FABRICATE 2 SERIES OF 7 BARS THAT VARY UP TO THE DIMENSIONS OF THE PP505E BAR.

NOTES:

1. FOR BAR BENDS AND REINFORCING NOTES, SEE DWG. DT-09.

PIER PROTECTION - REINFORCEMENT

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

NOT TO SCALE

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

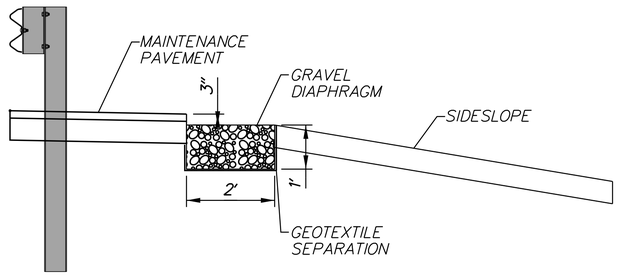
CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: DAN
COUNTY	
NEW CASTLE	CHECKED BY: WAG

CONSTRUCTION DETAILS PIER PROTECTION REINFORCEMENT SCHEDULE

DT-10

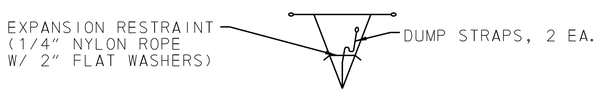
SECTION: WRA

SHEET NO. 171

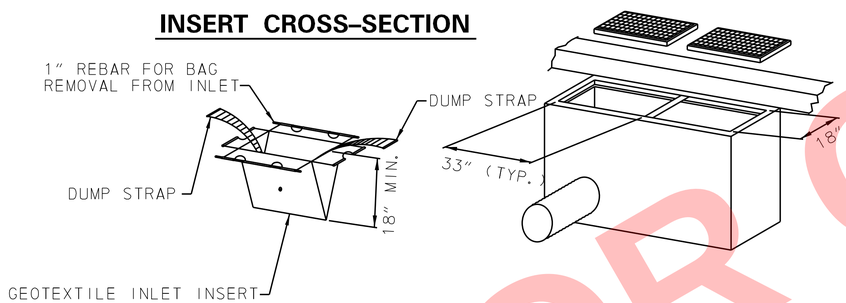


GRAVEL TRENCH DETAIL

NOT TO SCALE



INSERT CROSS-SECTION



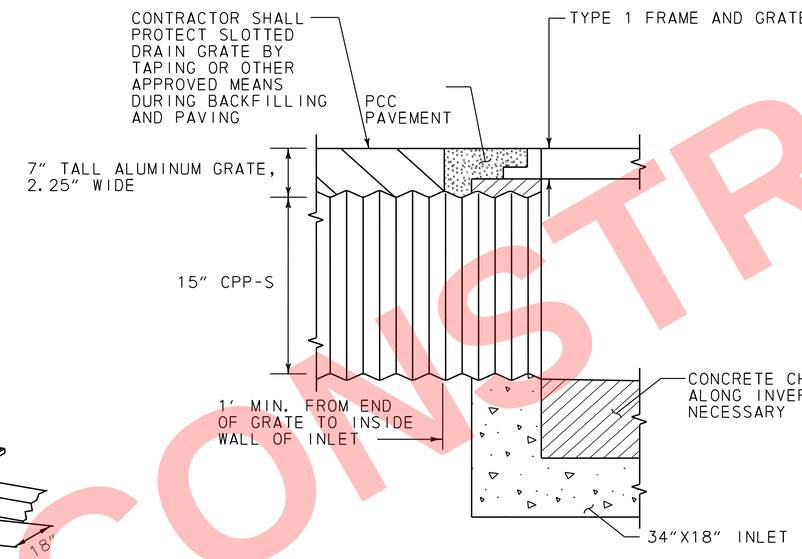
PERSPECTIVE VIEW

NOTES:

1. ONE (1) GEOTEXTILE INLET INSERT SHALL BE INSTALLED PER GRATE OPENING.
2. INLET PROTECTION SHALL BE MEASURED AND PAID PER INLET NOT INLET INSERT IN ACCORDANCE WITH SECTION 252, INLET SEDIMENT CONTROL.

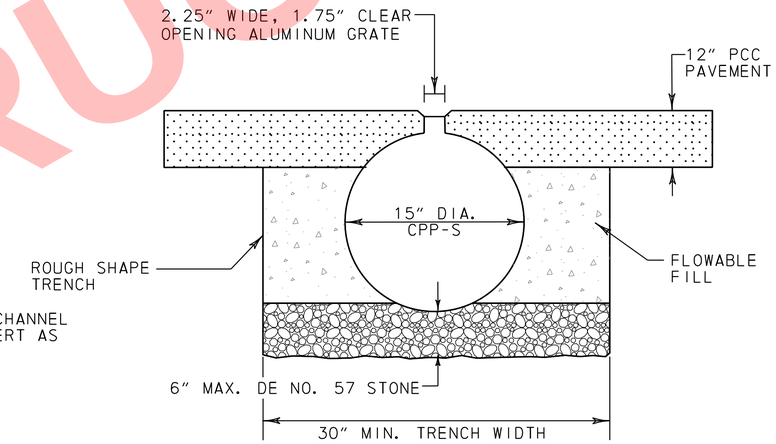
INLET PROTECTION DETAIL

NOT TO SCALE



SLOTTED DRAIN CONNECTION TO INLETS

SCALE: NOT TO SCALE



BEDDING DETAIL

SCALE: NOT TO SCALE

15" DIA. SLOTTED DRAIN CPP-S

SCALE: AS NOTED

NOT FOR CONSTRUCTION

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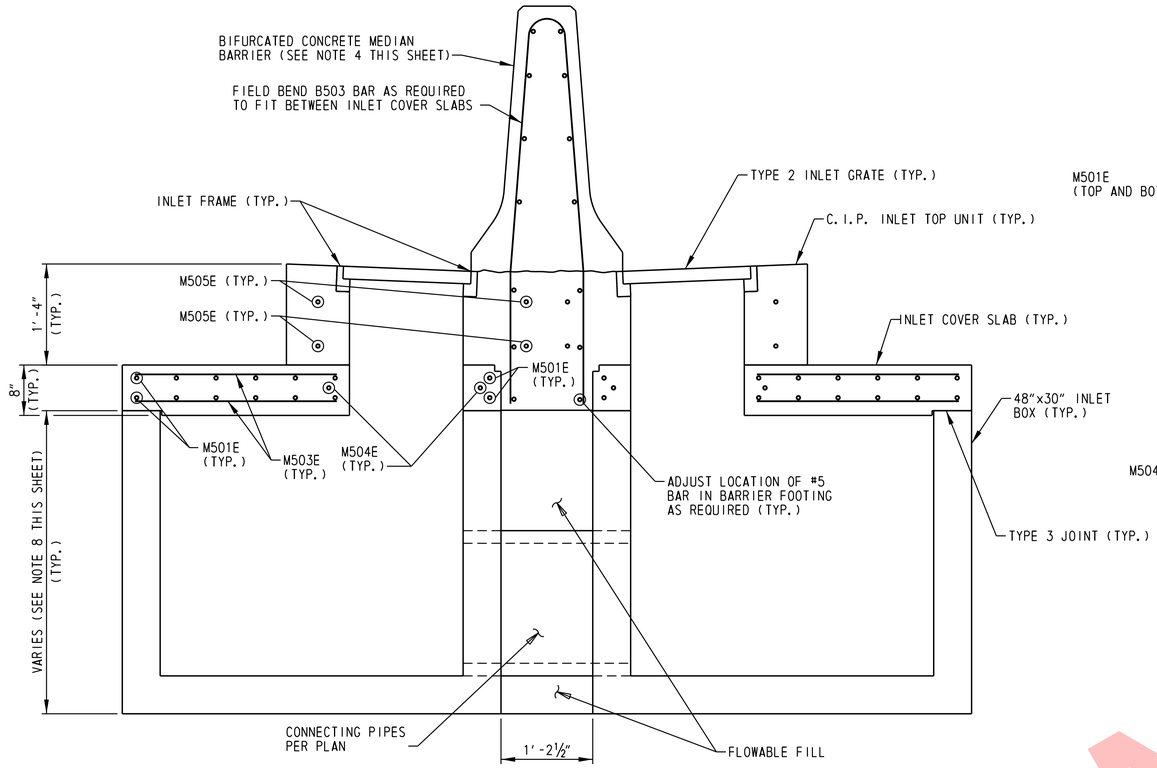
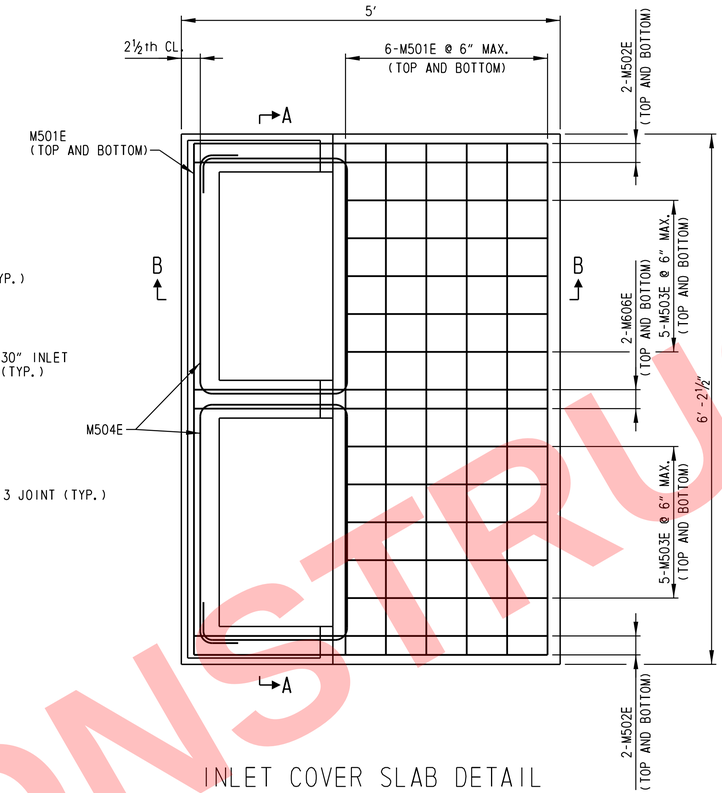
ADDENDA / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	GRAVEL DIAPHRAGM INLET PROTECTION SLOTTED DRAIN DETAILS	DT-11
			COUNTY NEW CASTLE	DESIGNED BY: KDV		SECTION WRA
				CHECKED BY: JDC		SHEET NO. 172



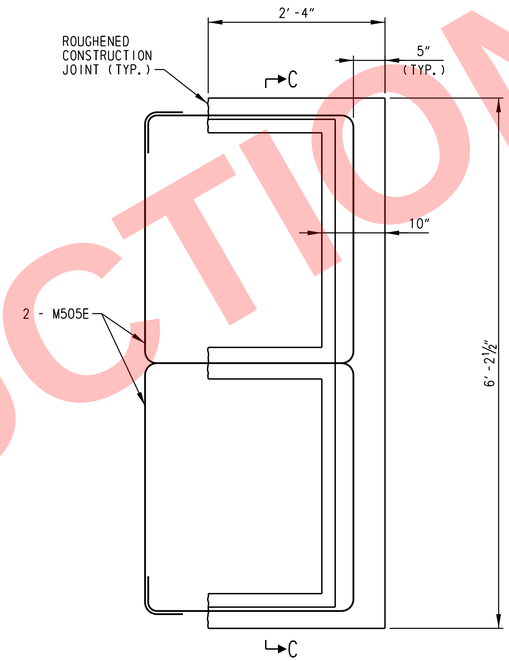
DRAINAGE INLET ASSEMBLY

SCALE: 1"=1'-0"



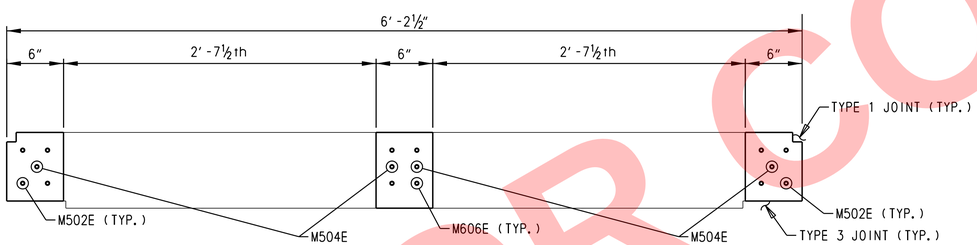
INLET COVER SLAB DETAIL

SCALE: 1"=1'-0"



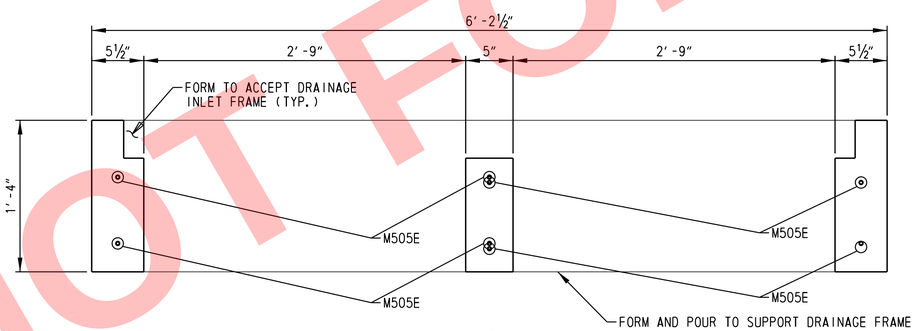
INLET TOP UNIT DETAIL

SCALE: 1"=1'-0"



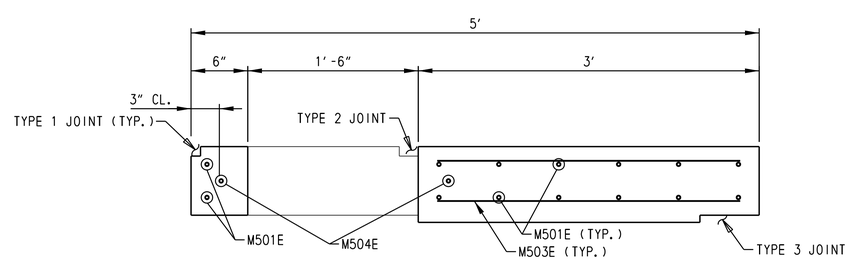
SECTION A-A

SCALE: 1½"=1'-0"



SECTION C-C

SCALE: 1½"=1'-0"



SECTION B-B

SCALE: 1½"=1'-0"

NOTES:

1. PAYMENT FOR DRAINAGE INLETS INCLUDING BOXES, GRATES, TOP UNITS, COVER SLABS, FLOWABLE FILL, MODIFICATIONS TO CONCRETE MEDIAN BARRIER, JOINT SEALANT AND ALL WORK ASSOCIATED WITH DRAINAGE INLET ASSEMBLIES WILL BE MADE UNDER ITEM NO. 708058 - DRAINAGE INLET, 72"X48".
2. PAYMENT FOR EPOXY COATED REINFORCEMENT WILL BE MADE UNDER ITEM 604000 - BAR REINFORCEMENT, EPOXY COATED.
3. FOR DRAINAGE INLET ASSEMBLY LOCATIONS SEE CONSTRUCTION PLANS.
4. SEE STANDARD NO. D-4 FOR INLET BOX DETAILS. SEE STANDARD NO. D-5 FOR GRATE, FRAME, AND JOINT DETAILS.
5. FOR BIFURCATED CONCRETE MEDIAN BARRIER DETAILS SEE DWG. NO. DT-02.
6. MINIMUM REINFORCEMENT COVER SHALL BE 1½".
7. HOT POURED JOINT SEALANT SHALL BE USED TO FILL THE GAP BETWEEN THE DRAINAGE INLET FRAMES.
8. SEE SECTION 600 ON DWG. NO. PN-01 FOR INFORMATION REGARDING DRAINAGE INLETS WITH A STRUCTURE DEPTH EXCEEDING THE MAXIMUM DEPTH PROVIDED IN THE DELDOT STANDARD CONSTRUCTION DETAILS.

NOT FOR CONSTRUCTION

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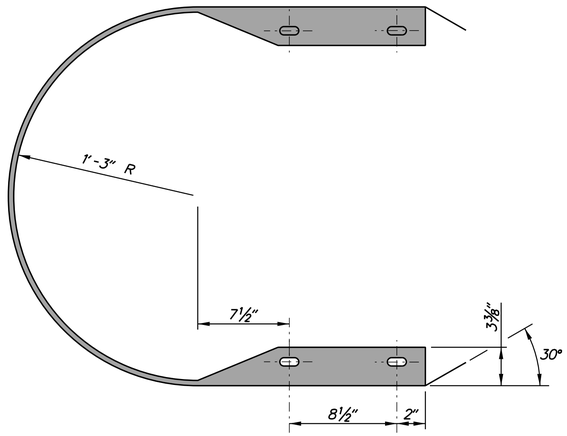
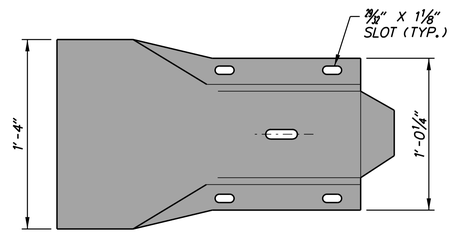
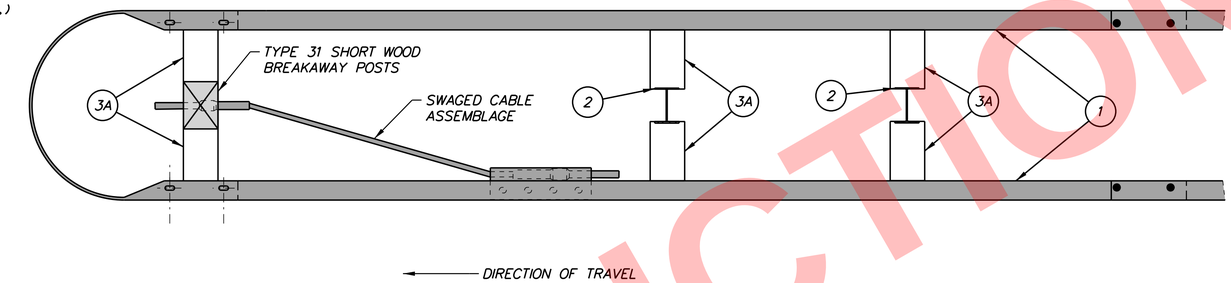
ADDENDA / REVISIONS	SCALE AS NOTED	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407405	BRIDGE NO.	CONSTRUCTION DETAILS DRAINAGE INLET ASSEMBLY DETAIL	DT-12 SECTION WRA
			COUNTY NEW CASTLE	DESIGNED BY: KDV		SHEET NO. 173
				CHECKED BY: JDC		



END SECTION PLAN



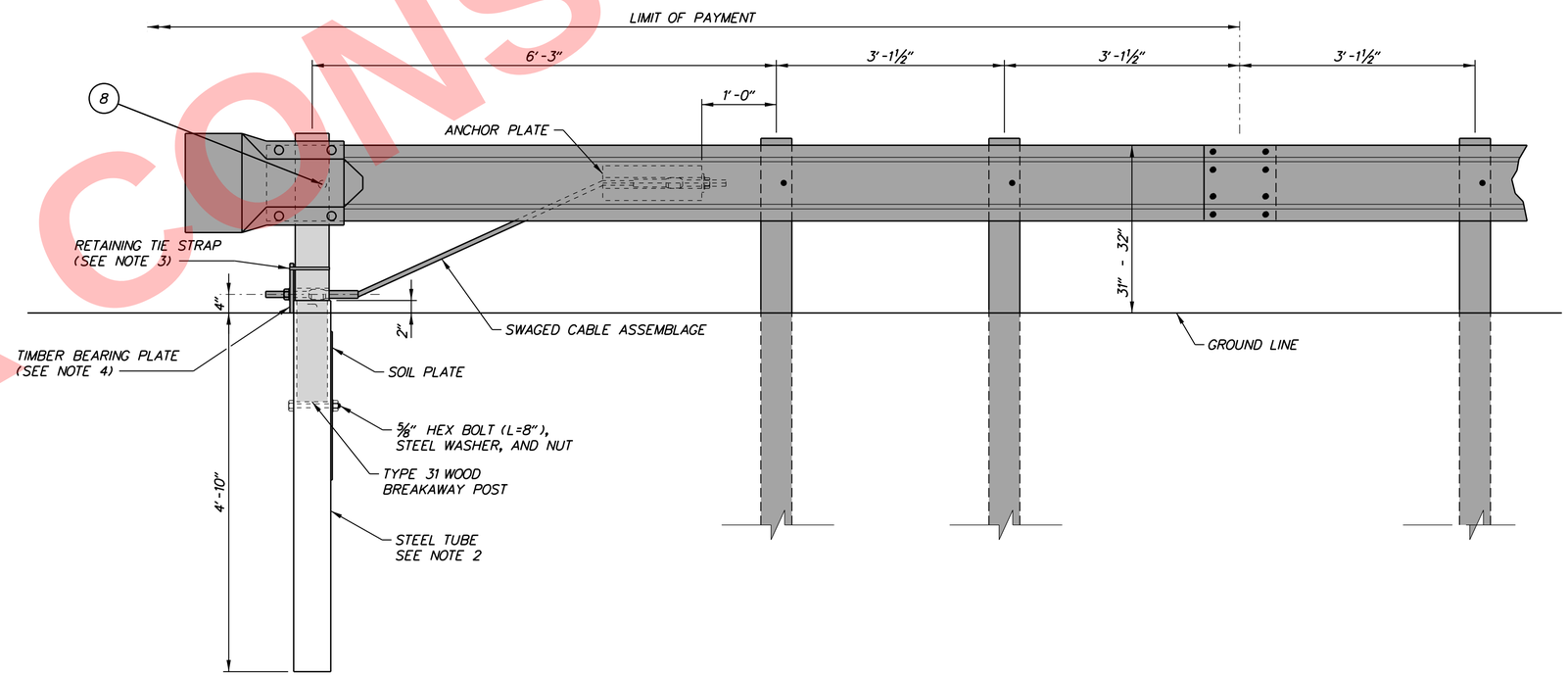
END SECTION ELEVATION



PLAN

BARRIER LEGEND

ITEM NO.	DESCRIPTION
1	W-BEAM
2	W6 X 9 STEEL POST
3A	6" x 12" x 14" OFFSET BLOCK
8	⅝" GUARDRAIL BOLT (L=10"), STEEL WASHER, AND RECESS NUT



ELEVATION

NOTES:

1. ADDITIONAL HOLES FOR ANCHOR PLATE SHALL BE DRILLED PRIOR TO GALVANIZING. (SEE DETAIL B-13, SHEET 8 OF 10 FOR HOLE SPACING INFORMATION).
2. CONTRACTOR HAS THE OPTION OF USING A 6'-0" STEEL TUBE WITHOUT A SOIL PLATE OR A 5'-0" STEEL TUBE WITH A SOIL PLATE.
3. PLACE A 1"x2" WIDE PLASTIC RETAINING TIE STRAP AROUND THE SHORT TIMBER BREAKAWAY POST AND TIMBER BEARING PLATE TO ENSURE THE PROPER ORIENTATION OF THE TIMBER BEARING PLATE.
4. REFER TO STD. CONSTRUCTION DETAIL B-13, SHEET 8 OF 10 FOR SWAGED CABLE ASSEMBLAGE AND RELATED HARDWARE ASSEMBLY, AND PROPER TIMBER BEARING PLATE ORIENTATION.

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

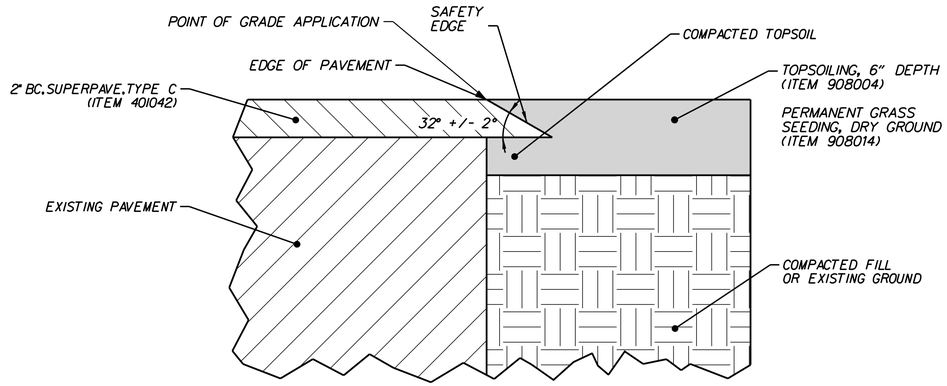
NOT TO SCALE

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT	BRIDGE NO.	
T201407405	DESIGNED BY: JAD	
COUNTY		
NEW CASTLE	CHECKED BY: BRT	

CONSTRUCTION DETAILS
END ANCHORAGE 31
DOUBLE FACE

DT-13
SECTION
WRA
SHEET NO.
174

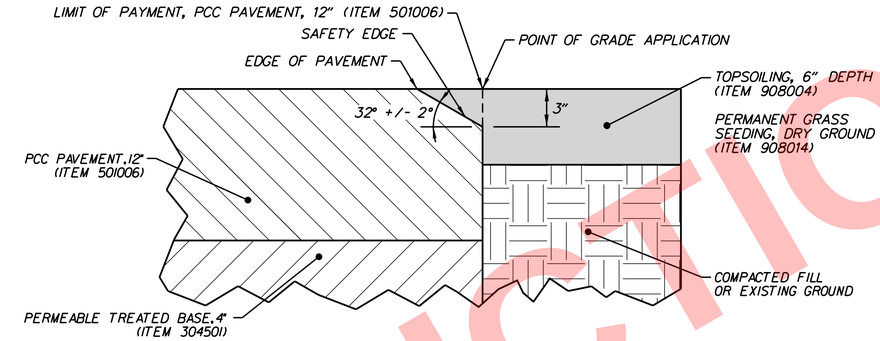


NOTE:

1. FOR ADDITIONAL INFORMATION, SEE ITEM 401752 SAFETY EDGE FOR ROADWAY PAVEMENT.
2. THE SAFETY EDGE SHALL NOT BE CONSTRUCTED ADJACENT TO OTHER PAVEMENTS, CURB, CURB & GUTTER, CONCRETE SAFETY BARRIER OR MAINTENANCE PAVEMENT UNDER GUARDRAIL. THE CONTRACTOR SHALL STAKE OUT THE LIMITS OF THE AREAS NOT TO RECIEVE THE SAFETY EDGE FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING PAVEMENT OPERATIONS.
3. IN BITUMINOUS CONCRETE PAVEMENT SECTIONS, PRIOR TO THE CONSTRUCTION OF THE SAFETY EDGE IN OVERLAY SECTIONS AND MILL/OVERLAY SECTIONS, THE EXISTING TOPSOIL OR IN-SITU MATERIAL AT THE EDGE OF PAVEMENT SHALL BE COMPACTED SO THAT IT IS LEVEL WITH THE BOTTOM OF THE FINAL SURFACE LAYER PRIOR TO PLACING THE FINAL SURFACE OVERLAY. AFTER THE FINAL SURFACE OVERLAY IS PACED, TOPSOIL SHALL BE PLACED TO THE TOP OF THE FINAL SURFACE OVERLAY.
4. IN BITUMINOUS CONCRETE PAVEMENT SECTIONS WHERE FULL DEPTH TOPSOIL IS PROPOSED TO BE PLACED ADJACENT TO THE EDGE OF PAVEMENT, THE TOPSOIL SHALL BE PLACED AND COMPACTED ALONG THE PAVEMENT EDGE TO THAT IS IT LEVEL WITH THE BOTTOM OF THE FINAL SURFACE LAYER PRIOR TO PACING THE FINAL SURFACE OVERAY. AFTER THE FINAL SURFACE OVERLAY IS PLACED, THE TOPSOIL SHALL BE PLACED TO THE TOP OF THE FINAL SURFACE OVERLAY. ALL COSTS FOR PLACING AND COMPACTING THE TOPSOIL SHALL BE INCLUDED IN THE PRICE OF THE TOPSOIL ITEM,

SAFETY EDGE - BITUMINOUS PAVEMENT AND OVERLAYS

NOT TO SCALE

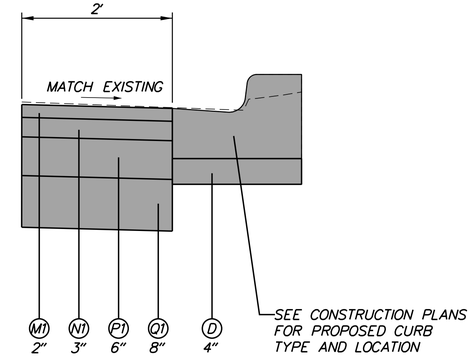


NOTE:

1. FOR ADDITIONAL INFORMATION, SEE ITEM 401752 SAFETY EDGE FOR ROADWAY PAVEMENT.
2. THE SAFETY EDGE SHALL NOT BE CONSTRUCTED ADJACENT TO OTHER PAVEMENTS, CURB, CURB & GUTTER, CONCRETE SAFETY BARRIER OR MAINTENANCE PAVEMENT UNDER GUARDRAIL. THE CONTRACTOR SHALL STAKE OUT THE LIMITS OF THE AREAS NOT TO RECIEVE THE SAFETY EDGE FOR APPROVAL BY THE ENGINEER PRIOR TO BEGINNING PAVEMENT OPERATIONS.

SAFETY EDGE - CONCRETE PAVEMENT

NOT TO SCALE



M1 ITEM 401026 - BITUMINOUS CONCRETE, SUPERPAVE TYPE C, 160 GYRATIONS PG 64-22 PATCHING

N1 ITEM 401027 - BITUMINOUS CONCRETE, SUPERPAVE TYPE B, 160 GYRATIONS PG 64-22 PATCHING

P1 ITEM 401028 - BITUMINOUS CONCRETE, SUPERPAVE BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS PG 64-22 PATCHING

Q1 ITEM 301002 - GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING

CURB PATCH DETAIL

NOT TO SCALE

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS	

NOT TO SCALE

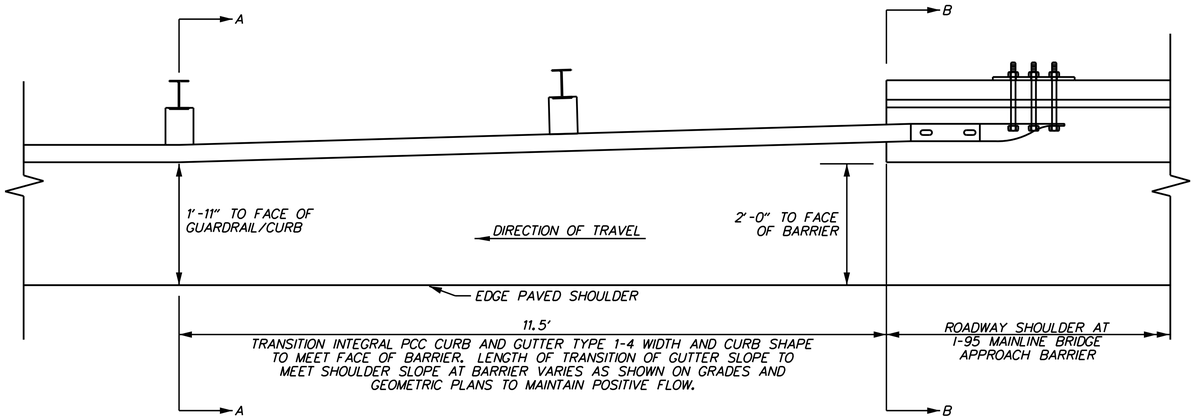
REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

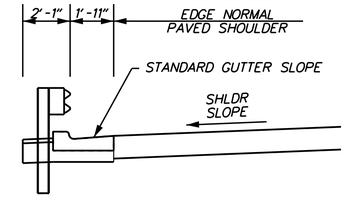
CONTRACT	BRIDGE NO.
T201407404	DESIGNED BY: JAD
COUNTY	
NEW CASTLE	CHECKED BY: BRT

CONSTRUCTION DETAILS CURB PATCH DETAIL AND SAFETY EDGE DETAIL

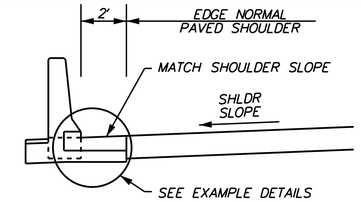
DT-14

SECTION
WRA
SHEET NO.
175

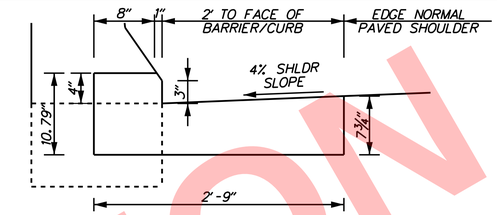




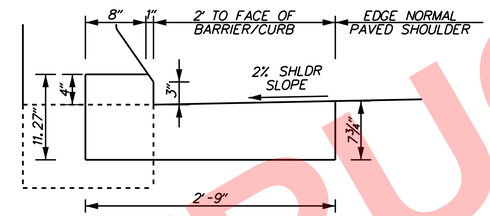
SECTION A-A



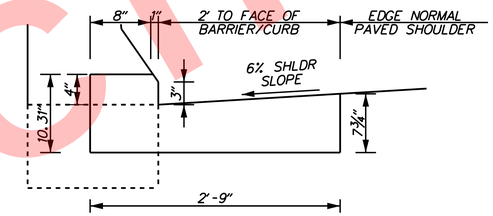
SECTION B-B



BARRIER/CURB DETAIL (4%)



BARRIER/CURB DETAIL (2%)



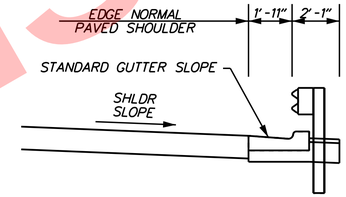
BARRIER/CURB DETAIL (6%)

NOTES:
1. PLACE PREFORMED EXPANSION JOINT MATERIAL BETWEEN END OF CURB AND BARRIER PER SECTION 701.01.
2. TRANSITION LIMITS TO BE MEASURED FOR PAYMENT UNDER ITEM 701016 WITH ALL COSTS FOR TRANSITION INCLUDED IN ITEM 701016.

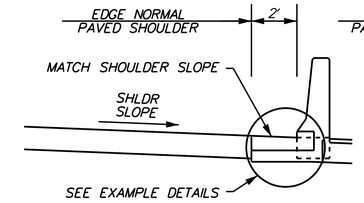
CURB TRANSITION DETAILS AT GUARDRAIL TO BARRIER CONNECTION (EXIT TYPE)

I-95 NORTHBOUND OUTSIDE SHOULDER: STA. 1320+93.44 TO STA. 1321+04.94
STA. 1344+96.22 TO STA. 1345+07.72
STA. 1355+75.58 TO STA. 1355+87.08
RAMP A, LEFT: STA. 115+21.54 TO STA. 115+33.04
RAMP A, RIGHT: STA. 115+21.54 TO STA. 115+33.04

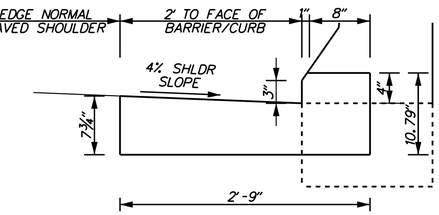
I-95 SOUTHBOUND OUTSIDE SHOULDER: STA. 2357+01.39 TO STA. 2357+12.89
STA. 2361+03.04 TO STA. 2361+14.54
RAMP N, LEFT: STA. 1304+88.58 TO STA. 1305+00.08
RAMP N, RIGHT: STA. 1305+90.00 TO STA. 1306+01.50
RAMP J, RIGHT: STA. 901+82.25 TO STA. 901+93.75



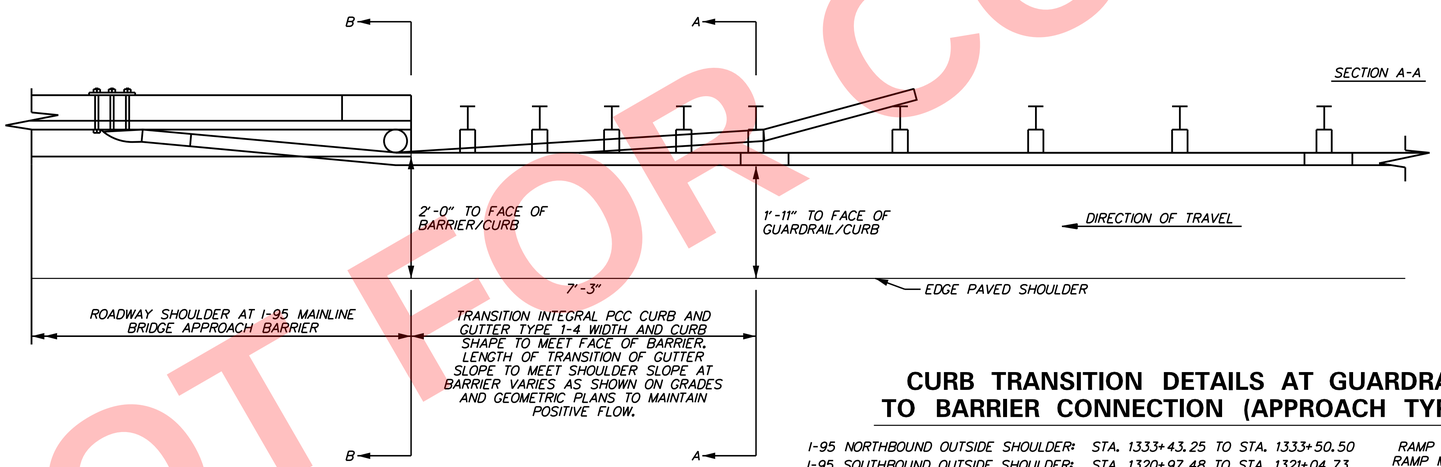
SECTION A-A

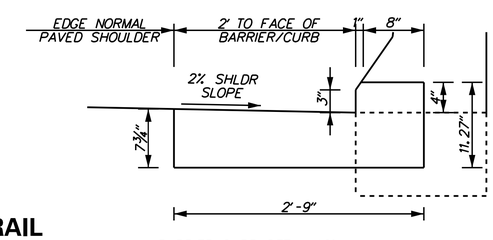


SECTION B-B

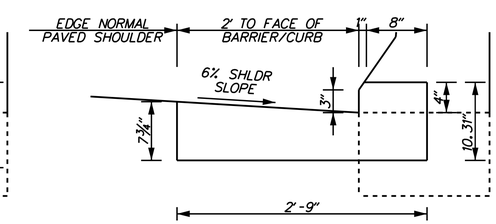


BARRIER/CURB DETAIL (4%)





BARRIER/CURB DETAIL (2%)



BARRIER/CURB DETAIL (6%)

NOTES:
1. PLACE PREFORMED EXPANSION JOINT MATERIAL BETWEEN END OF CURB AND BARRIER PER SECTION 701.03.
2. TRANSITION LIMITS TO BE MEASURED FOR PAYMENT UNDER ITEM 701016 WITH ALL COSTS FOR TRANSITION INCLUDED IN ITEM 701016.

CURB TRANSITION DETAILS AT GUARDRAIL TO BARRIER CONNECTION (APPROACH TYPE 1)

I-95 NORTHBOUND OUTSIDE SHOULDER: STA. 1333+43.25 TO STA. 1333+50.50
I-95 SOUTHBOUND OUTSIDE SHOULDER: STA. 1320+97.48 TO STA. 1321+04.73
STA. 2452+31.53 TO STA. 2452+38.78
RAMP H, LEFT: STA. 814+34.08 TO STA. 814+41.33
RAMP H, RIGHT: STA. 815+78.15 TO STA. 815+85.40
RAMP L, LEFT: STA. 1107+41.68 TO STA. 1107+48.93
RAMP L, RIGHT: STA. 1107+41.68 TO STA. 1107+48.93
RAMP M, LEFT: STA. 1203+54.30 TO STA. 1203+61.55
RAMP M, RIGHT: STA. 1203+21.30 TO STA. 1203+28.55
RAMP N, LEFT: STA. 1307+64.96 TO STA. 1307+72.21
RAMP N, RIGHT: STA. 1308+07.56 TO STA. 1308+14.81
RAMP O, RIGHT: STA. 1408+87.93 TO STA. 1408+95.18

NOT FOR CONSTRUCTION

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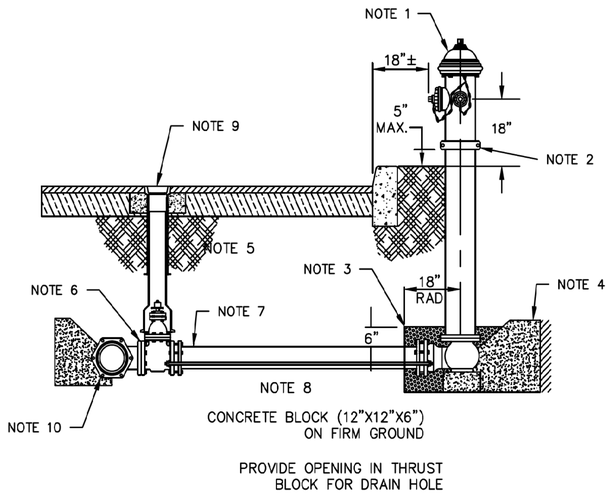
5/19/2009 Rev 8/18/14

ADDENDA / REVISIONS	NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CURB TRANSITION DETAILS AT GUARDRAIL TO BARRIER CONNECTION	DT-15
			COUNTY NEW CASTLE	DESIGNED BY: JAD		SECTION WRA
				CHECKED BY: BRT		SHEET NO. 176



FIRE HYDRANT INSTALLATION DETAIL

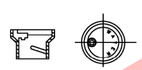
NOT TO SCALE

NOTES:

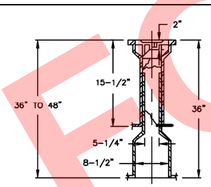
1. HYDRANT SHALL BE KENNEDY GUARDIAN DRY-BARREL TRAFFIC MODEL DESIGN WITH 5-1/4" VALVE OPENING.

   A. TWO 2 1/2" HOSE NOZZLES WITH 7 THREADS PER INCH.
   B. ONE 4 1/2" STEAMER NOZZLE WITH 5 THREADS PER INCH.

2. STAND PIPE (BREAK-AWAY) COUPLING SHALL NOT EXCEED A MAXIMUM OF 5 INCHES FROM THE TOP OF THE CURB TO THE BOTTOM OF THE COUPLING.
3. THE DRAIN VALVE SHALL BE CLEAR OF ANY OBSTRUCTIONS. A MINIMUM OF 1/3 YARD OF 3/4" CLEAN STONE SHALL BE INSTALLED AND COVERED WITH 8 MIL POLYETHYELENE SHEET.
4. THRUST BLOCKS SHALL BEMADE OF 3,000 PSI CONCRETE.
5. BACKFILL MATERIAL SHALL BE TYPE "C". (AS SPECIFIED)
6. 6" KENNEDY KENSEAL II (RESILIENT SEATED) MECHANICAL JOINT END GATE VALVE (RIGHT HAND).
7. 6" DUCTILE IRON CEMENT LINED CLASS 52 PIPE. JOINTS RESTRAINED.
8. 3/4" DIAMETER TIE ROD WITH EYE BOLTS (JOINT RESTRAINT). 2 REQUIRED. SHOWN IN SIDE VIEW.
9. SEE SURFACE BOX INSTALLATION DETAIL.
10. MECHANICAL JOINT TEE W/RETAINER GLANDS AND TIE RODS.



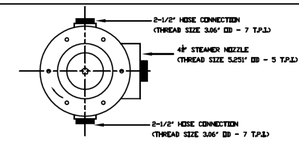
2-1/2" NEW STYLE FLUSH FIT COVER
ONLY COVER IS DIFFERENT STYLE
(NOT TO SCALE)

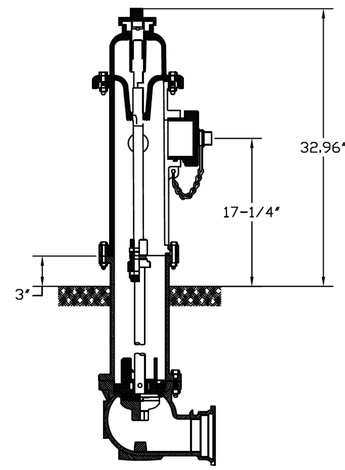


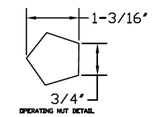
5-1/4" - 2 PIECE SLIDING TYPE
ADJUSTABLE VALVE BOX
TYPE B
(NOT TO SCALE)

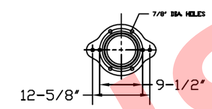
VALVE BOX AND COVER

NOT TO SCALE







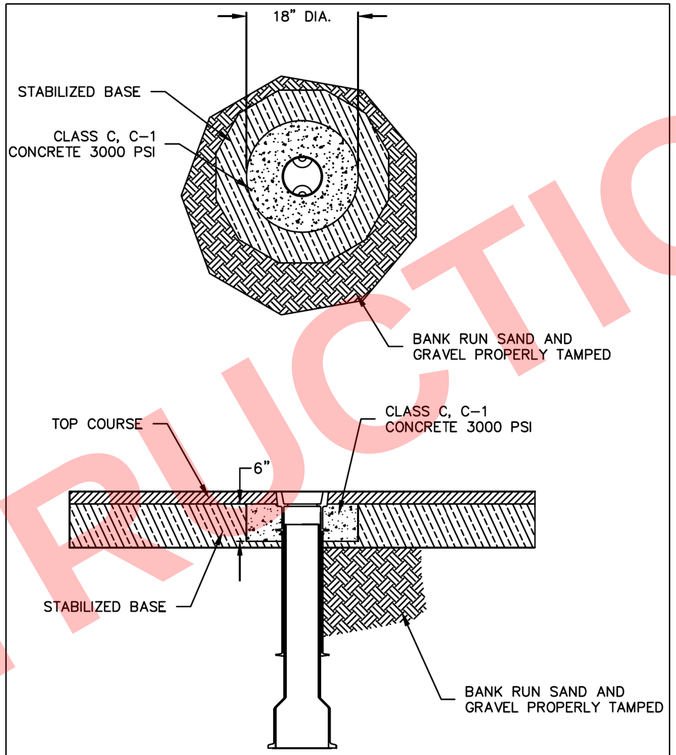


STANDARD FIRE HYDRANT
KENNEDY GUARDIAN, 5 1/4" VALVE OPENING

NOT TO SCALE

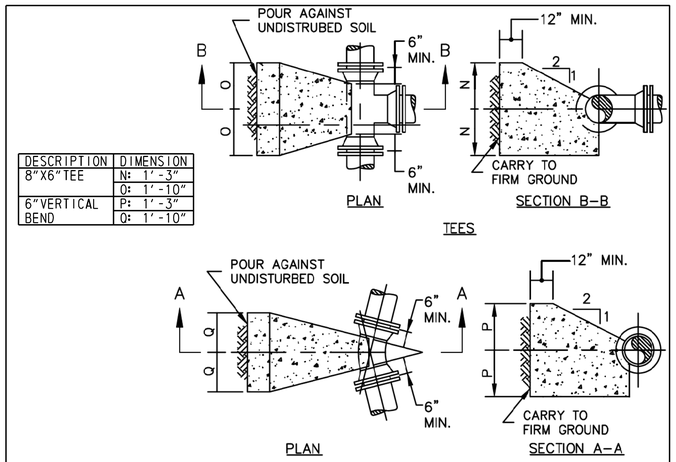
NOTES:

1. HYDRANTS SHALL CONFORM TO AWWA C502, LATEST REVISION, RELATING TO FIRE HYDRANTS AND CONFORM WITH THE CITY OF WILMINGTON STANDARDS.
2. HYDRANTS SHALL BE KENNEDY VALVE MODEL GUARDIAN, MUELLER MODEL CENTURION, OR APPROVED EQUAL.
3. HYDRANTS SHALL BE OF TWO PIECE DESIGN WITH A BREAKING RING LOCATED APPROIMATELY 3-INCHES ABOVE THE GROUND LINE. HYDRANTS SHALL BE PROVIDED WITH A STAND PIPE WITH AN 8-INCH ID, AND 6-INCH DIAMETER MECHANICAL JOINT CONNECTION AND SHALL BE FOR A TYPICAL TRENCH DEPTH OF 4 FEET. EXTENSION COLLARS SHOULD BE PROVIDED AS REQUIRED FOR PROPER SETTING OF HYDRANTS.
4. HYDRANTS SHALL HAVE A COMPRESSION TPE VALVE WITH 5 1/4-INCH DIAMETER OPENING, TWO (2) 2 1/2-INCH HOSE CONNECTIONS (WITH THREAD SIZE 3.06 INCH OD AND 7 THREADS PER INCH). HYDRANTS SHALL HAVE O-RING SEALS AND THE MAIN VALVE SHALL OPEN CLOCKWISE WITH A 19/16-INCH TO 3/4-INCH PENTAGON NUT.
5. PAINTING AND ALL DETAILS SHALL BE IN ACCORDANCE WITH THE CITY OF WILMINGTON STANDARDS.
6. ALL PARTS OF HYDRANTS SHALL BE INTERCHANGEABLE WITH SIMILAR PARTS OF HYDRANTS OF THE SAME SIZE AND TYPE. ALL BOLT HOLES SHALL BE ACCURATELY DRILLED FROM TEMPLATES. ALL JOINTS SHALL BE FACED SMOOTH, SO AS TO MAKE A PERFECTLY WATERTIGHT JOINT.
7. HYDRANTS SHALL BE PROVIDED WITH "BREAKABLE RING" TRAFFIC FLANGE AND BREAKABLE COUPLING STEM. THE TRAFFIC FLANGE SHALL HAVE 360 DEGREES ADJUSTMENT FACILITIES.
8. EACH HYDRANT SHALL BE SHOP TESTED UNDER 300 PSI APPLIED HYDROSTATIC PRESSURE ABOVE AND BELOW THE COMPRESSION VALVE. ANY HYDRANT SHOING SWEATING OF THE METAL OR LEAKING OR OTHER DEFECT SHALL BE REJECTED. ALL TESTS SHALL BE MADE AT THE EXPENSE OF THE SUPPLIER.



VALVE BOX INSTALLATION DETAIL

NOT TO SCALE



DESCRIPTION	DIMENSION
8"X6"TEE	N: 1'-3"
	O: 1'-10"
6"VERTICAL BEND	P: 1'-3"
	Q: 1'-10"

THRUST BLOCKS (200 LB TEST)

NOT TO SCALE

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS		NOT TO SCALE	REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE	CONTRACT T201407404	BRIDGE NO.	CONSTRUCTION DETAILS FIRE HYDRANT RELOCATION DETAILS	DT-16
				COUNTY NEW CASTLE	DESIGNED BY: JAD		SECTION WRA
					CHECKED BY: BRT		SHEET NO. 177

	I-95 SOUTHERN LIMITS TO 744	I-95 744 TO 745	I-95 745 TO 746	I-95 746 TO VIADUCT	I-95 NORTH OF VIADUCT NB 1	I-95 NORTH OF VIADUCT NB 2	I-95 NORTH OF BRANDYWINE RIVER BRIDGE NB 3	I-95 NORTH OF VIADUCT SB 1	I-95 NORTH OF VIADUCT SB 2	I-95 NORTH OF BRANDYWINE RIVER BRIDGE SB 3	RAMP A	RAMP F	RAMP H	RAMP J	RAMP K	RAMP L	RAMP M	RAMP N	RAMP O	RAMP P	PROJECT TOTALS
EXCAVATION - ITEM 202000 (CY) [NEED = '-' / EXCESS = '+']																					
EX01 : FROM CROSS SECTIONS / MODELS (+)	2936.48	2042.66	1666.41	13550.99	11371.79	7477.02	265.21	2157.48	6622.59	806.08	226.91	673.79	327.12	2419.17	3620.05	1721.11	1450.42	1733.91	1886.57	1717.46	64673.21
EX03 : TOPSOIL REMOVED AND HAULED OFF SITE (+)	220.62	172.45	151.09	1326.87	170.26	179.92	0.00	174.31	133.57	28.13	12.40	0.00	28.18	104.26	53.61	97.37	83.62	54.44	62.18	39.32	3092.60
EX05 : ROOT MAT REMOVED AND HAULED OFF SITE (-)	102.83	0.00	1.83	82.85	201.75	0.00	0.00	103.41	55.54	75.32	0.00	0.00	0.00	192.63	281.06	186.08	108.50	0.00	311.26	253.42	1956.48
EX10 : ROCK EXCAVATION (-)	0.00	0.00	0.00	0.00	218.95	0.00	0.00	267.59	220.88	0.00	0.00	0.00	0.00	31.08	153.38	0.00	0.00	11.11	0.00	0.00	903.00
EX10 : REMOVAL OF PCC PAVEMENT, CURBS, SIDEWALK, BARRIER ETC. (-)	74.15	77.78	67.11	65.70	2575.75	2440.25	122.68	2505.42	2031.56	38.78	92.21	741.10	124.17	916.60	1140.57	702.35	688.92	762.36	627.58	639.89	16434.92
EXTOTAL : TOTAL EXCAVATION (ITEM 202000)	3185.78	2137.32	1752.22	14895.01	8949.10	5216.68	142.53	-337.82	4559.26	870.75	147.10	-67.31	231.13	1768.38	2660.77	1302.21	953.63	1014.87	1632.43	1370.31	52384.37
EMBANKMENT AND BORROW, TYPE 'F' REQUIRED (CY) [NEED = '-' / EXCESS = '+']																					
EMRF01 : FROM CROSS SECTIONS / MODEL (+) [EMBANKMENT REQUIRED BELOW SUBGRADE OR CAPPING]	0.00	0.00	0.00	0.00	234.31	63.60	24.00	566.87	193.07	0.00	0.09	17.48	0.00	5.02	0.54	174.07	2.26	20.34	0.90	16.07	1318.62
EMRF08 : SUBTOTAL OF EMBANKMENT AND BORROW, TYPE 'F' REQUIRED	0.00	0.00	0.00	0.00	234.31	63.60	24.00	566.87	193.07	0.00	0.09	17.48	0.00	5.02	0.54	174.07	2.26	20.34	0.90	16.07	1318.62
EMRF09 : COMPACTION FACTOR APPLIED TO THE SUBTOTAL (%)	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
EMRFTOTAL : TOTAL EMBANKMENT AND BORROW, TYPE 'F' REQUIRED	0.00	0.00	0.00	0.00	281.17	76.32	28.80	680.25	231.69	0.00	0.10	20.97	0.00	6.03	0.64	208.88	2.71	24.41	1.08	19.29	1582.35
TOPSOIL SUMMARY (CY) [NEED = '-' / EXCESS = '+']																					
SINCE THE IS A HAUL JOB, ALL TOPSOIL WILL BE HAULED OFF SITE. NO STOCKPILING WILL OCCUR.					-																0
MATERIAL BALANCE (CY) [NEED = '-' / EXCESS = '+']																					
ALL MATERIAL TYPES WIL BE FURNISH. NO STOCKPILING WILL OCCUR.					-																0

NOT FOR CONSTRUCTION

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ADDENDA / REVISIONS

NOT TO SCALE

REHABILITATION OF I-95 FROM I-495 TO NORTH OF BRANDYWINE RIVER BRIDGE

CONTRACT T201407405
COUNTY NEW CASTLE
BRIDGE NO.
DESIGNED BY: JAD
CHECKED BY: BRT

EARTHWORK SUMMARY

EW-01
SECTION WRA
SHEET NO. 178